

WEEK
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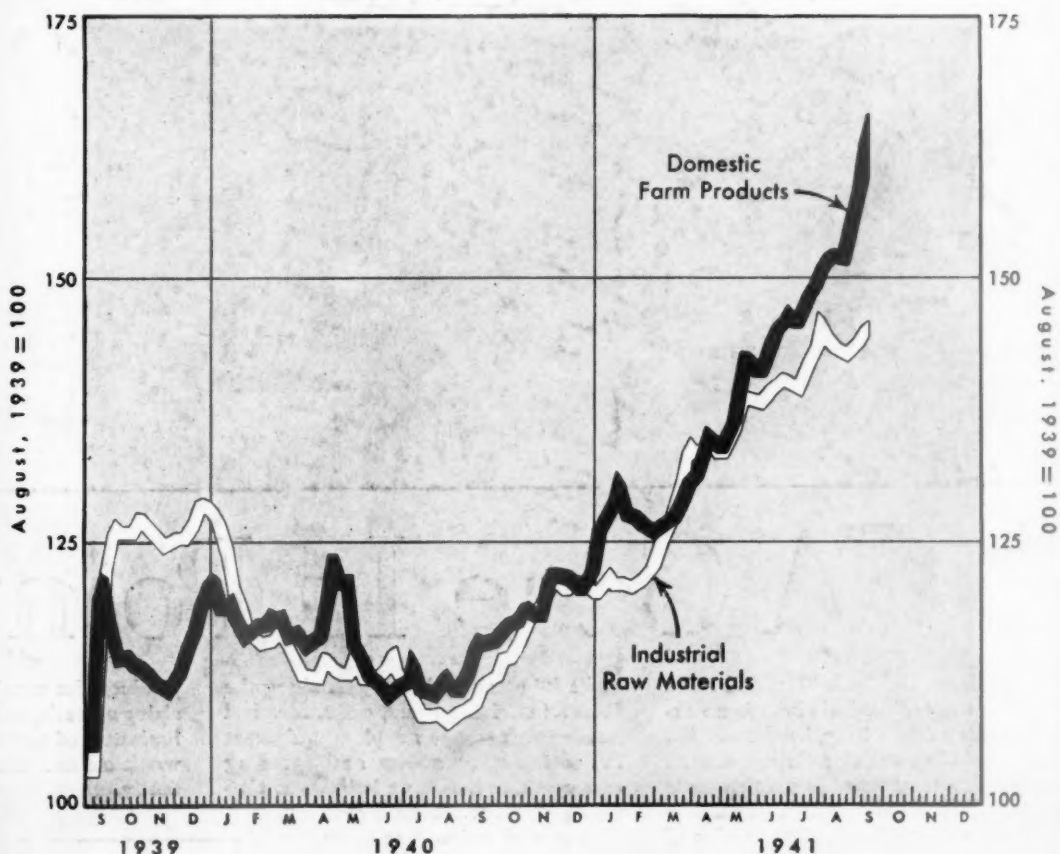
YEAR
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BUSINESS WEEK

SEP 29 1941

WHY WASHINGTON IS WORRIED

Advance in Basic Prices Gathers Momentum



BUSINESS
WEEK
INDEX

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One of a series illustrating Cyanamid's many activities.

A Case In Point

Like all boys, Bobby is "inclined to be hard on things," and his bike is no exception. It works a long, hard day... the drive chain in particular. Cogs and links mesh a thousand times in a single jaunt between home and school. You wonder how such a slender, intricate series of little links and rolls can possibly withstand the incessant drag weight and friction, the ceaseless shock and impact of pumping and braking.

But Bobby's bike does stand up and deliver—even heroically at times. And therein lies the secret of a process that means a great deal to all industry. This is the case-hardening process, by which the surface of steel parts is made resistant to wear and tear. It is especially important today because machinery must

"take it" as never before, all along the line... in driving gears, cams, dies and bearings of great power plant equipment... of towering cranes and speeding conveyors, of humming lathes and clattering presses... of trucks, trains, planes and ships that keep the wheels of factory and transportation turning with an uninterrupted flow of production.

Case-hardening compounds such as AEROCASE* and AEROCARB* compounds, developed by American Cyanamid Company, give soft, workable steels the durable surface needed by industry for low cost, high speed, continuous operation in vital machine parts. They are part of a complete line of Cyanamid

products for case-hardening and carburizing of steels, and demonstrate another instance of Cyanamid Chemistry at work on the "assembly lines" of industry.

*Reg. U. S. Pat. Off.



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Cyanamid Company**

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MOLDING THE FUTURE THROUGH CHEMISTRY

Busi



Banking for Defense Production

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IT HAPPENED.



HERE is a catastrophe that didn't happen "over there"!

It happened right in America, bringing to a long halt a busy, useful plant. It can be duplicated wherever power equipment is used—for boilers, pressure vessels, turbines, engines, the very heart of industry, control vast amounts of energy which, if unleashed, can be as destructive as the largest bomb.

With increasing industrial activity, the chances for power-plant accidents are greater—resulting in losses and delays more serious.

If power is an essential in your plant, make sure it is adequately protected. The cost of this assur-

ance isn't a "drop in the bucket" compared to the possible cost of neglect. Hartford Steam Boiler, the pioneer in power-plant insurance, specializes in this type of protection alone. Its far-flung field force of over 400 inspectors, guided and aided by a long-experienced technical staff, is constantly working to prevent accidents before they can happen—to keep power-plants running uninterruptedly.

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Covers: Boilers • Steam, Gas and Diesel Engines • Turbines • Pressure Vessels • Electrical Equipment
Writes more power-plant insurance than any FIVE other companies in this field; and shop-inspects more than 90% of the nation's industrial-power boilers during their construction.

BUSINESS WEEK

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Business Week • September 27, 1941

THE WORLD
IS HUNGRIER THAN EVER
FOR...

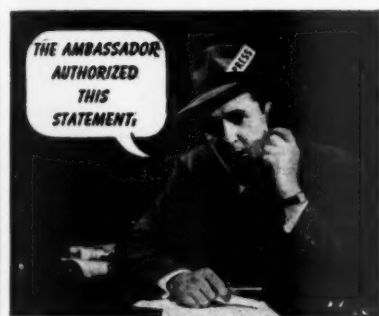
NEWS

How this appetite for news is fed

What happened in Europe today? What did Congress do? Who won the golf title? And, nearer home, will it rain this week-end?

We want fast answers—and we get them through newspaper, newsreel and newscast. Do you know that these purveyors of news gather it largely on equipment produced by one organization?

* * *



The newspaper reporter's right arm is the telephone —made by Western Electric

Using the long arm of the telephone, the reporter can reach out to thousands of inaccessible spots, scoop up the news and bring it to his own desk. When he is in the field, telephones everywhere put him in instant touch with his paper.



News while it's fresh is flashed over Western Electric Teletype machines

The great press associations send out thousands of words every day to papers all over the country. These stories go by Teletype machines which make for speed and accuracy. And they travel over telephone wires—another Western Electric product.

Western Electric made the first commercial telephoto equipment

Many newspapers publish photographs which come over the telephone wires—and by means of sending and receiving apparatus which Western Electric made. Here illustrated is an operator about to transmit a picture to a group of newspapers.



Many newsreels are recorded and reproduced by Western Electric Sound System

The sound newsreel and, indeed, the talking picture itself were made possible by the pioneering work of Bell Telephone Laboratories and Western Electric.



Most radio news travels over Western Electric telephone wires



Many radio stations broadcast over Western Electric apparatus. Moreover, network programs come to your local station over telephone lines and through control centers equipped by Western Electric.

* * *

Though it plays these varied parts in your daily life, this Company is of greatest importance to you in its primary role—that of source of supply to the Bell System. As such, it is the telephone users' assurance of equipment high in quality, low in cost, dependable in operation.

Western Electric

... is back of your Bell Telephone service

How to locate more plant facilities IN NEW YORK STATE

"We're on the spot, Ed! We don't get that sub-contract unless we move up the date."

"So they want delivery yesterday, eh, Ralph? Well, we can't do that, but while you were in Washington..."

"Don't tell me you located a new plant for us?"

"Yes, through Marine Midland. The plant isn't perfect, but we're lucky to find anything."

"Those upstate connections of Marine Midland certainly come in handy, don't they?"



► Our customers call on us for all sorts of business information in New York State. Data on plant facilities... products manufactured... marketing conditions... plus the normal commercial bank services. Such material is available here because Marine Midland Banks in thirty-nine industrial and trade centers in New York State are daily in close contact with people and business activities in this area.



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BUSINESS WEEK

and the ANNALIST

Sept. 27, 1941

THE COVER

Those climbing lines show how raw materials, industrial and farm, continue to move up. The advances are showing up at the retail counter—page 14. That's beginning to make congressmen anxious for some form of tighter control, but politics will hold it up "till snow flies"—page 15.

TAKING STOCK

Up to now, the major part of the defense effort has been concentrated on designing new implements of war and building plants to produce them. This month marks the real beginning of the shift from tooling up to actual production. Where the defense program of the United States stands—in terms of planes, and guns, and ships, and raw materials—now and where it's going—page 16.

COVER UP

Camouflage used to be a matter of a few fake branches here, and a dab of paint there. Today, industrial targets must be protected not only from enemy troops on the ground, but from keen-eyed airmen and even keener aerial cameras. For worried seaboard industrialists, the latest developments in plant camouflage—page 53.

STUMBLING BLOCK

To work minimum hardship on the private soldier's \$21-a-month pay, the reorganized Army post exchange service planned on buying tobacco, candy, drugs, and other non-military items direct from manufacturers. But drug houses apparently don't want to sidetrack their wholesalers, and the new Exchange Service setup has struck a pricing snag—page 22.

THE GREAT "GAPOSIS"

Unless Washington acts within the next few weeks to release small quantities of copper, nickel, and zinc for the use of the slide-fastener industry, "zipper" seem to be doomed for the duration. There's already a serious shortage, with repercussions in the clothing, footwear, and luggage industries, which are now geared to slide-fastener use—page 44.

ALL BALLED UP

The tax amortization law passed in the summer of 1940 was intended to promote private investment in defense plants. An oversupply of red tape and differing interpretations by government agencies have turned it into a failure and an all-around headache—page 26. Aspirin may shortly be provided in the form of a bill now before Congress.

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WASHINGTON BULLETIN

FOR BUSINESS BY BUSINESS WEEK'S WASHINGTON BUREAU

Allocations to the Fore

Priority control is swinging from the distribution of materials by individual rating certificates—the aggregate of which is often greater than total stocks—to a system of industry-wide allocations of available supplies for particular uses, both defense and nondefense. Don't expect a miracle. No manipulation of priorities will furnish more materials for everybody and everything. But you can expect elimination of much of the present red tape of priorities.

Industries will be catalogued in the order of their importance—from those responsible for war output right on down the list of those producing essential, then nonessential, civilian products. Priority certificates will become little more than affidavits of eligibility for individual producers to draw from the industry allocations for one use or another. Eventually, individual preference ratings may disappear altogether when control is extended to fixing the exact amount that a manufacturer can produce of a finished article and supplying him the exact amount of materials to make it with.

Repair Parts for All

With an eye to post-war conditions, the Supply Priorities and Allocations Board will aim to keep all industries in running order, even though they are not essential to defense. In line with the policy laid down this week, provision will be made for supplying repair parts; a candy-making plant, for example, will be able to obtain needed parts to repair a mixer.

In return, all industries will be required to keep inventories at minimum operating levels, using all possible methods of conserving critical materials by substituting others and by simplifying designs.

Price-Control Strategy

The Administration is playing what it thinks is smart politics to get effective price-control legislation out of Congress (page 15), but many congressmen wish that it would play a straightforward game. The cat's paw is Bernard Baruch. Original drafts of the bill, now limited primarily to commodities, included sweeping proposals affecting wages and other cost factors, as urged by the last war's price czar. These far-reaching provisions were stripped from the bill introduced Aug. 1, a strategic move dictated by the public's mood at that time.

In recent weeks, however, the dance of prices has brought a decided shift in public opinion, which the administration is taking advantage of by using Baruch to poke holes in its own bill. The tactic was discernible this week Baruch testified before the House Banking Committee.

● **Checkmate**—Nothing approaching the extent of Baruch's broad proposals is likely to be adopted, but White House strategy is designed to strengthen the bill's provisions and resist attempts by blocs to whittle down the legislation.

Fair Traders Reassured

Although fair-trade advocates believe that the provisions of the pending price-control bill are broad enough to cover an OPA blitz on price maintenance, they don't intend to raise the issue in Congress. They have been reassured in recent conversations with Leon Henderson and his aides.

Prevailing OPA view is understood to be as follows: Henderson is not interested in the type of price rise which fair-trade opponents lay to price-maintenance contracts; he is interested in checking inflationary prices that shoot up rapidly. Thus, even if fair trade results in a slightly higher price, it also works to stabilize the price and prevent the inflationary skyward push. In addition, OPA is not yet directly concerned with retail prices, believing that if raw materials are kept in line, retail prices will take care of themselves.

Publicizing the Spiral

Big worry of the advocates of price-control legislation now is that the extra publicity given to rising prices as the bill is discussed on Capitol Hill will intensify the demand for goods while shortages are increasing.

Henderson estimates that out of defense expenditures of, say, \$25,000,000,000 this fiscal year, there will be between \$4,000,000,000 and \$7,000,000,000 which will not be recaptured by taxation, absorbed by savings, or otherwise immobilized. This is what Henderson calls the "inflation gap," which will raise hob with price control if it suddenly rushes into spending channels.

Gas Regulation—and Relief

The October program for curtailing gasoline consumption on the East Coast will base quotas for individual dealers on average consumption for May, June, and July but will also take into account

sales for October, 1940. This formula is devised to equalize seasonal inequalities in the amounts of gasoline supplied dealers who do a heavy summer business but whose sales drop off as the weather grows colder, and vice versa.

Plans are also being drawn to convert future gasoline rationing regulations, now issued as civilian allocation orders, into actual priorities orders issued under authority of the Vinson Priorities Act. This would permit legal prosecution of violators, whose numbers have steadily grown.

● **Relief Prospect**—The oil shortage, resulting from the diversion of tankers to Britain, drew too much political fire. Hence, according to reliable reports, the Administration isn't going to give Britain any more tankers, may actually get a few back.

Anthracite Price Sticks

Defied by anthracite producers who calmly ignored his price-ceiling edict of Sept. 12, Leon Henderson, administrator of OPA, followed the line forecast last week and withdrew his order on Sept. 18. Official explanation of the failure to force a legal test of OPA powers was that the industry finally had come through with "full and comprehensive data supporting the price advance" of 15¢ per ton on domestic sizes of hard coal and would attempt no further advances without prior consultation and approval of OPA. Defiance by the industry, declared Henderson, "would not be tolerated in the future."

● **Sidelight**—The 1941 price pattern of the producers contemplated no increases on domestic sizes after Sept. 15.

That New Tax Bill

With the \$3,500,000,000 tax measure barely out of the way, the Treasury Department is already at work on the new "administrative" tax bill which will include more than 150 technical changes. Most of them are in the nature of equity adjustments, devices for plugging loopholes, and schemes to simplify collections.

Additional revenue yield will not be great, by current standards—\$200,000,000 to \$300,000,000 at most—unless "ringers" like new excess-profits taxes and universal mandatory joint returns get in, which would push the yield up toward the billion-dollar mark.

The Administration's fight against the corporations' average earnings exemption from excess-profits taxation may be renewed with introduction of

the bill late next month. The New Deal attack team of Morgenthau, Henderson, and Eccles, which fought for inclusion of graduated excess-profits taxes based entirely on invested capital in the \$3,-500,000,000 tax measure, is promoting the plan as essential to effective price control. This may be finally accepted by Congress as a lesser evil than 100% taxation of profits above some fixed percentage of capital, a plan of which there is now talk.

• **For Effect**—Morgenthau's statement that corporations should be allowed to earn only 6% on their invested capital can't be accepted as a bona fide tax proposal—not yet, anyway. Aired at House hearings on Henderson's price control bill, the Treasury Secretary's recommendation was designed to bolster the case for a strong law to protect against inflation.

More Work For NDMB

So decisive has a National Defense Mediation Board recommendation become, to the Southern California aircraft industry at least, that collective bargaining conferences get nowhere until NDMB has its say. Thus, in the current wage dispute between A.F.L.'s Machinists Union and Consolidated Aircraft, the company welcomed the union's strike vote because it would bring NDMB into the picture. Conferences were bogged down in the difference between the union's demand for a flat 10¢-an-hour wage increase and the company's offer of 5¢. The company's nickel stand is based on the fact that it gave its 23,000 employees a 5¢ increase only last July.

Further beclouding the aircraft labor picture is the dispute between an independent welders union and the Solar Aircraft Co., which manufactures 90% of the exhaust manifolds used by West Coast plane makers. The welders want \$1.40 an hour (a 21¢-an-hour raise) and threatened a strike to get it. OPM conciliators are trying to find a solution.

• **New Woes**—Both situations add up to new labor woes for Washington already beset with the ship union trouble (page 65). Certainly with A.F.L., C.I.O., and independent unions all scrambling for the best possible contracts, hopes of bringing off a labor stabilization agreement for the aircraft industry are dim.

House Probes Housing

All is not well with government-financed defense housing. Instead of granting the Administration's request for \$300,000,000 additional funds, which has been pending for months, the House Public Buildings and Grounds Committee is investigating the whole program. An 11-man subcommittee is on a two-weeks aerial trip to inspect government projects. Investigators ex-

pect to uncover evidence of a bungled program, particularly in slum-clearance efforts.

The ax appears to be out for USHA Administrator Nathan Straus and perhaps his boss, FWA Chief John M. Carmody. Carmody's rift with Defense Housing Coordinator Charles F. Palmer has done him no good. The White House has backed Palmer and assured him he retains site-selection authority, which Carmody sought for the Federal Works Agency.

More Committees

Greater utilization by OPM of industrial advisory committees is in the cards, particularly with respect to conservation and allocation of materials for civilian use and the simplification of lines. The committees won't have any administrative power but, as the situation grows tighter and tighter, OPM will call more and more for industry's suggestions.

Clock-Turning

It's too late now to do much about extending daylight saving time—at least this year. Most of the areas that operate on daylight time in the summer go back to standard times next week. The White House bill to empower the President to establish year-round daylight time regionally or nationally as he deems necessary to save electric power is still stuck in the House Interstate Commerce Committee. The southeastern rainfall that alleviated the power shortage in that area knocked the props out from under the power-saving argument for immediate passage of the bill. But that action might be taken eventually—maybe next summer—was indicated by the Federal Power Commission's estimate that 736,282,000 kw. hr. could be saved annually.

Now, out of the country's 15 biggest cities that operate on summer daylight time, only Chicago will continue daylight time through October. New York, Philadelphia, Boston, Pittsburgh, Buffalo, Newark, Indianapolis, Rochester, Louisville, Jersey City, Memphis, Birmingham, Providence, Syracuse were still scheduled at midweek to go back to standard time Sept. 27.

Arnold Draws a Blank

Just as his big drive on the drug industry got under way this week with the return of subpoenas in Newark, N. J. (BW—Sep.13'41,p8), Thurman Arnold drew a blank in the first of his anti-trust actions directly involving the fair-trade price maintenance.

After 60 hours of deliberation, a Denver jury that had split hopelessly over the guilt of 18 cement firms and individuals indicted for conspiracy to fix retail cement prices (BW—Aug.23'41,p34)

was discharged by U. S. District Judge J. Foster Symes. Earlier, the judge had ruled out charges of price-rigging at the wholesale level, but said there was evidence that the Ideal Cement Co. and the Monolith Portland Midwest Co. had made identical resale price maintenance contracts with dealers, which suggested the possibility of illegal combination.

• **Regional Record**—In failing to sustain conspiracy charges, the jury continued the record of the Rocky Mountain region for no convictions in antitrust cases (although many defendants have from time to time pleaded nolo contendere). The government now wants to retry the cement case, and Judge Symes has tentatively set the date for Oct. 1. But this encore will delay trial of a group of lumber dealers, firms and associations, concurrently indicted with the cement people.

P. S.

Judged by Britain's experience, the defense inventory of all the nation's trucks and buses, which John M. Carmody's Federal Works Agency started on Thursday, is the forerunner of a general registration of all kinds of equipment which might be useful for defense. . . . Renewal of the government contract to buy Peru's entire copper output is held up pending settlement on a new higher import price commensurate with rising domestic prices. Old contract allowed 10¢ a lb. Chile is holding out for higher prices (page 73) and Peru is insisting on a similar deal. . . . The small business man as defined by Trustbuster Thurman Arnold: "One who is unable to afford a Washington representative." . . . Provision will be made to supply bicycle manufacturers with materials for a simplified line of models, probably through an industry-wide allocation. The cycle makers are in a jam because they assumed that, as consumers of only small quantities of scarce metals, they wouldn't get stuck. . . . As expected (BW—Sep.13'41,p7), Lessing Rosenwald, ex-board chairman of Sears, will be appointed chief of OPM's Conservation Unit, on the recommendation of Donald Nelson. Rosenwald has resigned from the America First Committee and now opposes its policies. . . . "Jumping doctors" are being assigned to the new Army parachute battalions. They will jump with the troops, be supplied with equipment also dropped by parachute. . . . Look for Vice-President Wallace to pep up Nelson Rockefeller's Office of Inter-American Affairs. It's no secret that Wallace is dissatisfied with Rockefeller's efforts to curry the good will of the Good Neighbors. Rockefeller's activities are generally criticized as only reaching the "upper crust" in South American countries.

FIGURES OF THE WEEK

THE INDEX (see chart below)

% Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
*154.6	†154.5	155.9	144.7	133.1

PRODUCTION

Steel Ingot Operations (% of capacity)	96.8	96.1	96.5	99.8	92.5
Automobile Production	60,615	53,165	45,525	123,805	78,820
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands)	\$22,359	\$20,610	\$22,065	\$18,851	\$16,011
Electric Power Output (million kilowatt-hours)	3,232	3,281	3,193	2,964	2,769
Crude Oil (daily average, 1,000 bbls.)	4,074	4,034	3,975	3,681	3,621
Bituminous Coal (daily average, 1,000 tons)	1,838	†1,927	1,790	1,858	1,523

TRADE

Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars)	92	91	87	81	80
All Other Carloadings (daily average, 1,000 cars)	61	61	61	45	54
Check Payments (outside N. Y. City, millions)	\$6,357	\$5,105	\$5,720	\$5,816	\$4,884
Money in Circulation (Wednesday series, millions)	\$10,046	\$10,036	\$9,840	\$8,826	\$8,084
Department Store Sales (change from same week of preceding year)	+8%	+12%	+40%	+7%	+10%
Business Failures (Dun & Bradstreet, number)	180	169	227	255	216

PRICES (Average for the week)

Spot Commodity Index (Moody's, Dec. 31, 1931 = 100)	215.5	218.5	213.0	182.8	157.8
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	145.9	145.9	143.6	133.3	112.6
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100)	163.5	165.6	155.5	130.8	116.1
Iron and Steel Composite (Steel, ton)	\$38.15	\$38.15	\$38.15	\$38.29	\$37.96
Scrap Steel Composite (Iron Age, ton)	\$19.17	\$19.17	\$19.17	\$20.33	\$20.29
Copper (electrolytic, Connecticut Valley, lb.)	12.000¢	12.000¢	12.000¢	12.063¢	11.667¢
Wheat (No. 2, hard winter, Kansas City, bu.)	\$1.14	\$1.16	\$1.08	\$0.85	\$0.76
Sugar (raw, delivered New York, lb.)	3.50¢	3.50¢	3.50¢	3.40¢	2.72¢
Cotton (middling, ten designated markets, lb.)	16.85¢	17.61¢	16.22¢	10.64¢	9.47¢
Wool Tops (New York, lb.)	\$1.313	\$1.322	\$1.282	\$1.286	\$
Rubber (ribbed smoked sheets, New York, lb.)	22.50¢	22.50¢	22.50¢	22.49¢	19.26¢

FINANCE

90 Stocks, Price Index (Standard & Poor's Corp.)	81.8	81.7	81.0	79.0	85.3
Medium-Grade Corporate Bond Yield (30 Baa issues, Moody's)	4.32%	4.30%	4.28%	4.36%	4.63%
U. S. Bond Yield (average of all issues due or callable after twelve years)	1.95%	1.94%	1.95%	1.99%	2.17%
U. S. Treasury 3-to-5-year Note Yield	0.36%	0.32%	0.33%	0.49%	0.50%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average)	1.00%	1.00%	1.00%	1.00%	1.00%
Prime Commercial Paper, 4-to-6-months, N. Y. City (prevailing rate)	4%	4%	4%	4-4½%	4-4½%

BANKING (Millions of dollars)

Demand Deposits Adjusted, reporting member banks	24,375	24,503	24,455	23,186	20,984
Total Loans and Investments, reporting member banks	29,098	29,230	29,025	26,843	24,284
Commercial and Agricultural Loans, reporting member banks	6,362	6,310	6,180	5,414	4,578
Securities Loans, reporting member banks	906	1,025	881	926	866
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks	14,408	14,496	14,593	13,343	11,888
Other Securities Held, reporting member banks	3,773	3,759	3,744	3,786	3,704
Excess Reserves, all member banks (Wednesday series)	5,250	5,110	5,058	6,106	6,531
Total Federal Reserve Credit Outstanding (Wednesday series)	2,316	2,255	2,272	2,259	2,495

* Preliminary, week ended September 20th.

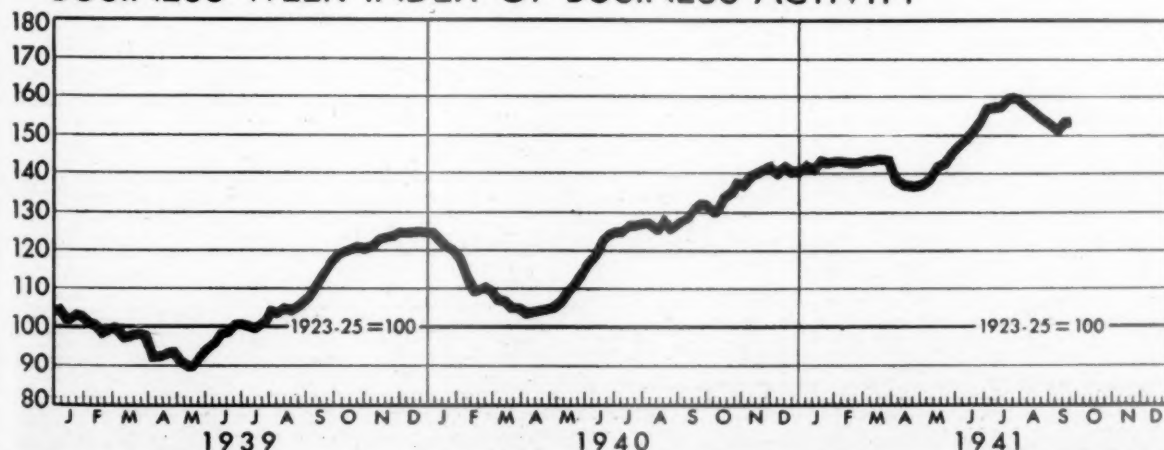
† Revised.

‡ Date for "Latest Week" on each series on request.

§ Not available.

¶ Ceiling fixed by government.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY





1 You've always said your business is different. And it is when you come to fluorescent lighting. It's new and it's wonderful . . . but it must be properly installed! You need experienced advice which your G-E lamp distributor can give you, backed with all the authority of General Electric's years of research.



2 If you run a shop or a store, ask G. E. before you buy fluorescent lighting to increase sales. G. E. doesn't make fixtures for MAZDA F lamps. But it co-operates with many fixture manufacturers to assure fluorescent lighting units geared to your needs. Your G-E lamp distributor carries many of them.



3 If you operate a factory, machine shop, assembly line, G-E fluorescent lighting can help you step up production, cut down rejects. Let G-E trained engineers measure your lighting needs. Then insist upon tested, certified, guaranteed fixtures, such as Fleur-O-Lier or RLM. See your G-E lamp distributor.



4 Want this new ultra-efficient lighting to speed work in your office? Then get your lighting planned by competent engineers, with exactly the fixtures you need for long, trouble-free service. Make sure you get G-E MAZDA F lamps. Your G-E distributor or your electric service company can help you.



40% more light—52% lower in price—in three years!

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THE OUTLOOK

Organizing Against Inflation

Reserve Board's boost in reserve requirements sets stage for integrated program to control rise in prices. Supply problem impedes production flow, but business in general still advances.

When the Federal Reserve Board this week boosted reserve requirements of member banks to the statutory legal limit (effective Nov. 1), it automatically cut down the power of the country's banking institutions to lend, and thus introduced a new control over potential inflation. For the time being, however, the action is psychological, rather than real. First, it was expected (BW—Sep. 20'41,p13); second, at \$4,000,000,000 member bank excess reserves will still be large enough to permit substantial expansion in commercial loans.

Bond Market Calm

Both the bond and stock markets took this view of the board's action. Government bonds were strong in the face of the news; though they wavered a bit at the outset of trading on Wednesday, they rapidly recovered all of their losses and then some. Apparently banks did not consider it necessary to liquidate federals in order to prop up their reserves. Stocks advanced at the start. Reports from the Russo-German battlefield had much to do with this. Wall Street felt that German despatches had exaggerated the plight of Budenny's army. But Secretary Morgenthau's proposal to tax away all corporate profits above 6% pulled stocks down.

The increase in reserve requirements is particularly important politically. It is evidence that the Administration is in earnest about checking the rise in prices. So far, the government has tried to keep prices from advancing by persuasion, or "indirect sanctions." Though Price Administrator Henderson has fixed ceilings on such key commodities as steel, copper, cotton print cloth, etc., his authority to do so has hardly been incontestable. Indeed, the Chrysler Corp. in June refused to comply with his request to rescind its price advances on 1941-model passenger cars (BW—Jul.5'41,p15). And last week anthracite producers ignored OPA's order (page 7).

Anti-Inflation Program

But now the stage is set to put real Administration pressure on Congress. The legislators cannot argue any longer that the government doesn't need additional authority to control inflation since it hasn't used its legislative power to the limit. (Of course, the Reserve

could further deflate bank reserves by selling its government bond holdings; but that would interfere with the Treasury's program of financing the defense effort as cheaply as possible.)

Siphoning Buying Power

All this week, Henderson, Secretary Morgenthau, and other government officials testified before the House Banking and Currency Committee on the urgent need for a price-control law. And President Roosevelt put a price bill on the "must" list after lease-lend. Seemingly, the Treasury, the Reserve, and OPA have reached some basic decisions on an integrated inflation-control program.

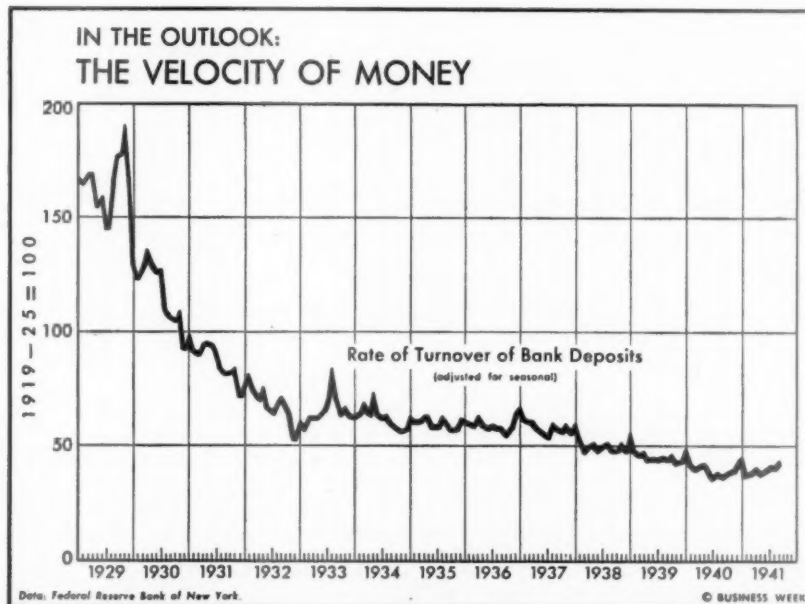
The Reserve may later request Congress for authority to raise reserve requirements some more. Mr. Morgen-

thau plans to increase efforts to sell savings bonds, and thus siphon purchasing power out of the hands of potential purchasers. More, the secretary is interested in increasing taxes generally and in widening the Social Security program so as to levy higher payroll taxes—presumably directly on workers.

Meanwhile, on the industrial front, supplies became a major problem. Administration officials were tossing the buck back and forth on paying high-cost copper mines a special price to produce (page 73). The play was: Henderson to Jesse Jones to Stettinius. Government officials were likewise exploring the possibility of boosting zinc prices from 7.5¢ per pound to 9¢ to get marginal production.

Freight-Car Problems

Railroad-equipment manufacturers, though booked solid with freight-car orders, were unable to operate at capacity because of shortages of steel. Automobile output also was slowed up for want of steel and other materials. And the railroads, expecting deliveries of freight cars this month, may be hard



Here you see why economists have talked about "idle money" in recent years; you also will see, if you look closely at what has happened since the beginning of the year, why the Treasury and the Federal Reserve are worried about inflationary tendencies. Back in 1929, bank deposits worked hard; they turned over at the rate of 80 times a year. But by 1940 turnover

had declined to about 19 times a year. Today, however, the propensity to spend is on the rise again—turnover has been in an uptrend in recent months, as the chart shows. Moreover, since demand deposits are at the highest level in history—60% above 1929—an increase in money velocity exerts a much greater leverage on our economy and price level than ever before.

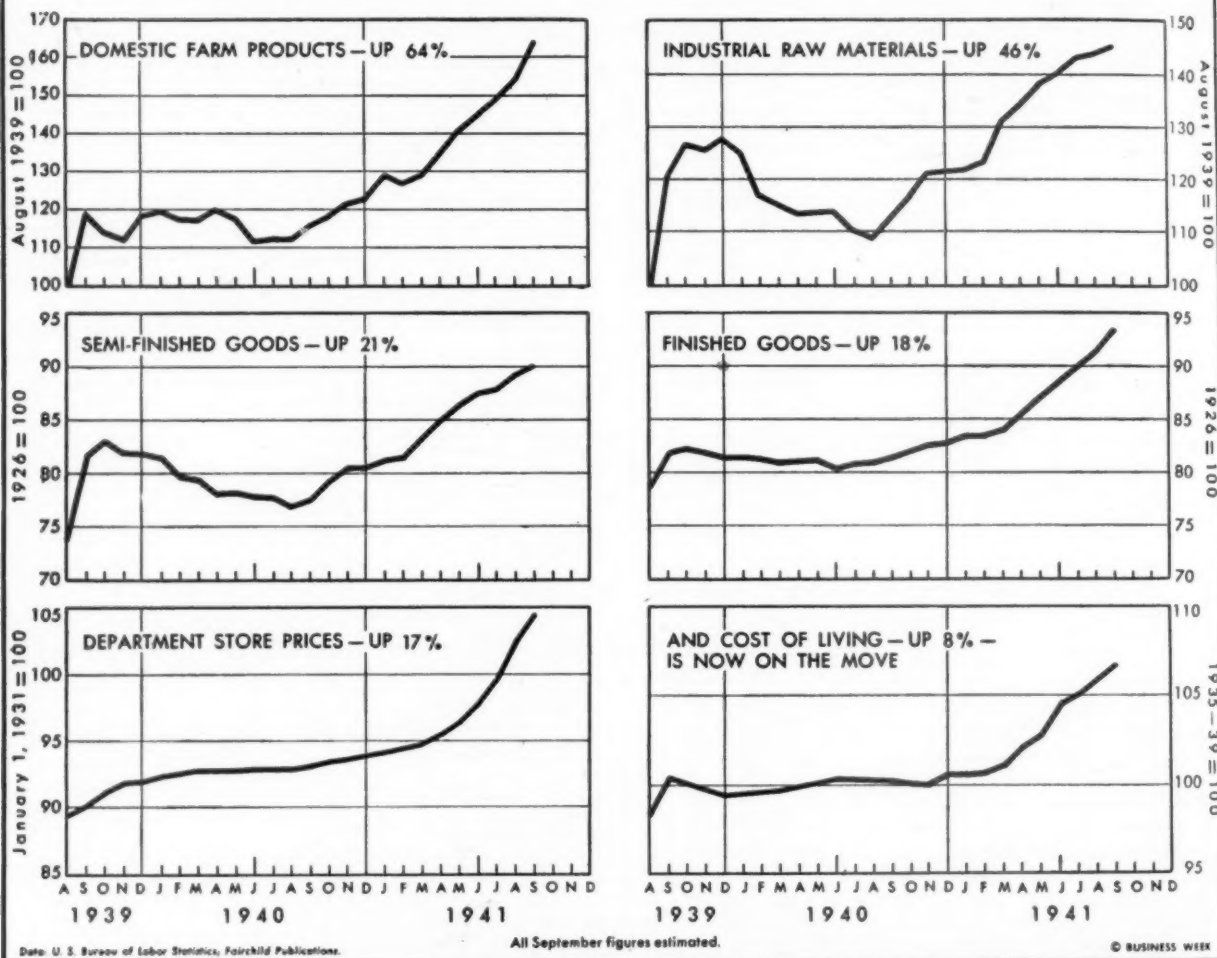
put to handle comfortably next month's peak traffic. Steel operations rose moderately to 96.8% of capacity, up 0.7. But mill stocks of steel scrap are low and dealers report that their own supplies are depleted; thus, some setback to operations may develop soon. To ease some local situations, Administrator Henderson, this week, made some minor adjustments in the steel-scrap price structure.

Construction continues to increase. Some private residential building has been held back by shortages, but government building (largely arms plants, airports, etc.) is still rising. Out of a total of \$760,000,000 in awards in August—an all-time high for the F. W. Dodge figures, incidentally—publicly-financed contracts amounted to \$509,000,000, or 67%. National defense con-

struction alone totaled \$405,000,000. On the whole, business is still in an advancing phase. Priorities dislocations may be felt in the next several months, but new arms plants coming into operation will moderate any decline. The dire prophecies by state and federal officials about the imminence of widespread unemployment should be examined for "political content."

THE PRICE RISE REACHES THE RETAIL COUNTER

Raw materials have advanced most; manufactured products next; and the consumer has just begun to pay.



The rise in the general commodity price level is now coming home to roost with the ultimate consumer. Since the war began, retail prices have been slow to respond to rising wage rates, higher production costs, and increased quotations for basic supplies. Initially, production and sales made it possible for manufacturers, wholesalers, and retailers to absorb these increased expenses. But finally the advances in raw, semi-finished, and fin-

ished prices have started to filter through to retail markets. Note particularly the rapid acceleration in department store prices and the cost of living (two lower charts) since the first of the year. Moreover, the rise seems destined to go further; and, in time, the high cost of living may become a general topic of conversation—just as during the World War. Indeed, workers already are using the jump in living costs as an argument for increased

wage rates. Such boosts would touch off the much-dreaded inflation spiral. Further wage boosts would raise manufacturing and distributing costs; manufacturers, wholesalers, and retailers then would want to mark up prices some more; workers would make further wage demands. So it would go—in a vicious economic roundelay of unstoppable cause and effect. That's why Leon Henderson is so anxious for a price-control bill (page 15).



When Bernard M. Baruch advocated imposing general control over all prices and wages as of a given date, Leon Henderson (right) said the plan was best idealistically but difficult to administer. The plan in Henderson's bill is to control inflation by keeping basic commodities down.

Price Bill Delayed by Politics

Congress finally gets interested in stopping inflation spiral but hammering of special interest groups and disagreements over scope of legislation are likely to cause long wrangle.

Snow will probably fly in Washington before Congress passes a commodity price control law. Time-consuming demands are being made for special treatment by all manner of interests. However, spurred by Roosevelt, Congress is at last interested in some remedial measures to stop inflation (chart, page 14).

Before vacationing in mid-August, most congressmen were in no hurry to tackle legislation which they felt would endanger their political hides. A month at home, during which it was apparent that price increases were at last beginning to spread from raw materials to finished goods and then to the retail counter, gave many another outlook.

This week, the House Banking and Currency Committee gave new and more respectful attention to Price Administrator Henderson in his arguments for the bill, sponsored by Rep. Steagall, which would prevent the fixing of ceilings on commodities and on rents and allow farm price increases up to 110% of parity (BW—Aug. 9'41, p15).

• **Backed by Baruch**—Although Henderson's stock has risen, especially since his endorsement by Bernard Baruch as the man for the job, there is still strong sentiment against placing price control in his hands or in the hands of any one

person. There has been a persistent demand, particularly from anti-Administration congressmen who fear Henderson's exercise of broad authority, for regulation by a board.

In contrast to those who would restrict the scope of the bill or hobble the administrative agency, there are some congressmen who argue that the bill doesn't go far enough. They say profits, wages, credits, interest payments, rents, and real estate as well as commodities should be controlled.

• **Political Realities**—Henderson admits that the pending bill won't prevent inflation—it's too late for that—but he does contend that, together with credit and other controls, it will stop runaway inflation. He is inclined to agree, in theory, with the necessity for broad controls over the entire economy, but he maintains that, in practice, such a measure would present almost insuperable administrative difficulties. In this statement, Henderson is unquestionably sincere, but no one can lose sight of the fact that it also happens to manifest a nice appreciation of political realities. He knows he will have enough trouble getting the proposed bill through Congress. Any proposal for the arbitrary regulation of wages, for example, would

be sheer dynamite; organized labor is already more than slightly disturbed by the prospect that wage ceilings will inevitably follow price controls.

This is an issue which the Administration has consistently sidestepped, and the farthest Henderson would commit himself was to say that wages "should be kept in restraint" and that voluntary agreements to prevent wage increases like those in shipbuilding were the "next stop" in the Administration's anti-inflation effort. Further, he contended that the collective bargaining system was in itself a form of wage control in which an industry's ability to pay wages increases out of profits automatically influenced the wage rate.

• **Wages vs. Living Costs**—By way of explaining the Bureau of Labor Statistics figures released this week, showing a cost of living increase of only 8% in larger cities since the start of the war as against increases of 27.2% in average weekly earnings and 17.4% in hourly wage rates in manufacturing industries, he pointed out that price increases are only now beginning to hit the consumer.

Although labor is still uneasy about price control, the biggest special interest which Henderson still has to placate to insure smooth sailing for his bill remains the powerful farm lobby; this, despite the guarantee of 110% of parity which Henderson defended this week as a workable standard. Reps. Steagall, Fulmer, and other farmers' friends in the House probably will go along with the 110% plan, but in the Senate, Henderson still has to deal with Bankhead and "Cotton Ed" Smith, irrevocably opposed to any form of price control. This, plus the continued hammering of special interest groups, explains why enactment is still weeks away.

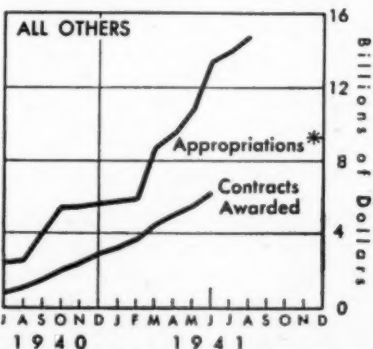
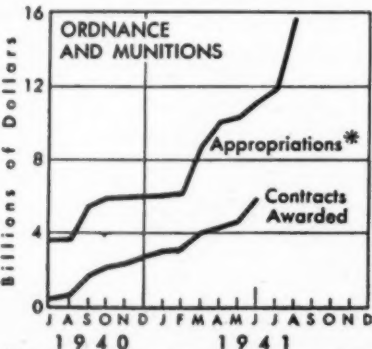
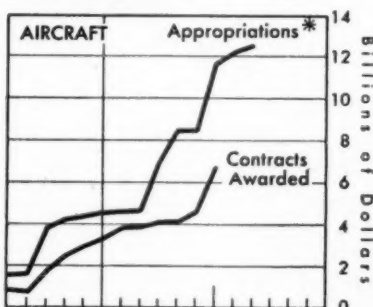
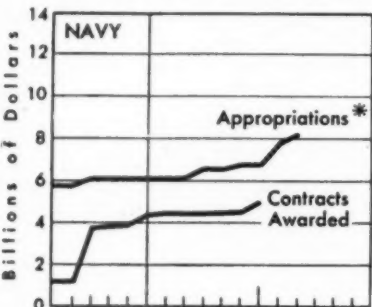
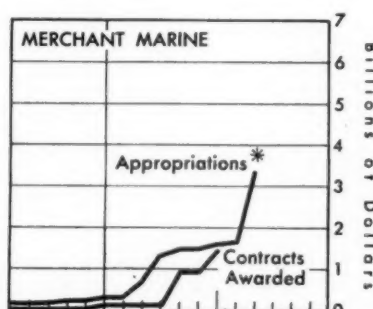
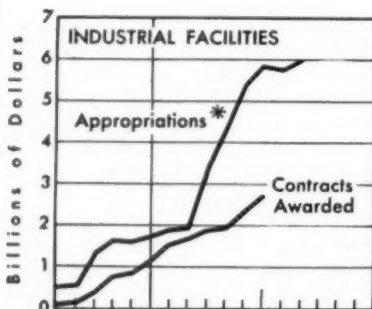
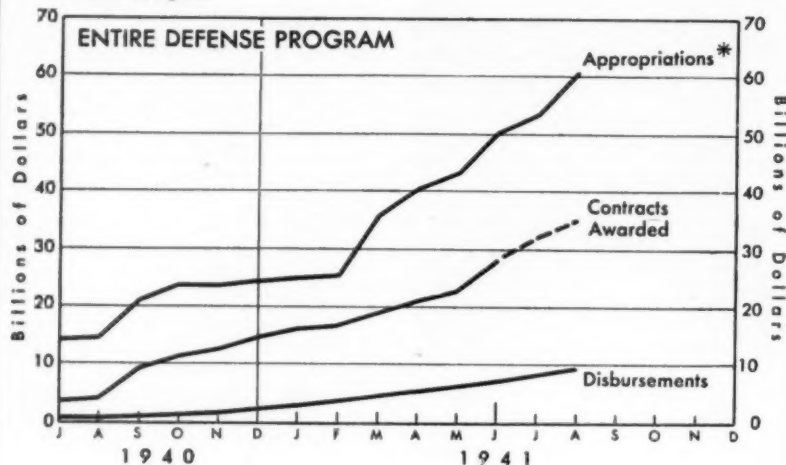
• **Effectiveness to Date**—In arguing the need for a more widespread control, Henderson points to the Bureau of Labor Statistics commodity index. Whereas the price level of 28 basic commodities (in terms of the August, 1939, average) increased 4.7% from last Aug. 16 to Sept. 13, the prices of 12 controlled commodities included in the index—sugar, hides, print cloth, burlap, copper, lead, silk, zinc, tin, steel scrap (at Chicago and Pittsburgh), and rubber—actually decreased 1.8%. Until a law is passed, control of commodity prices rests on "economic sanctions," not penalties (BW—Apr. 19'41, p16).

• **Strategic Moves**—Henderson told the House Banking Committee on Sept. 17 that conditions were particularly bad in the chemical markets. This week, he asked Thurman Arnold to invoke the antitrust laws against more than 40 offenders, mostly brokers. The administrator, following strategy already used against furniture makers, has also asked the Federal Trade Commission to investigate "certain marketing and distributing practices" in the baking industry.

WHERE WE STAND ON DEFENSE

More than \$60,000,000,000 has already been appropriated for defense. This includes \$7,000,000,000 under the lease-lend program, and \$3,600,000,000 of cash orders from foreign governments. However, contracts have been let for only \$35,000,000,000 of this total, and—up to the beginning of September—less than \$10,000,000,000 has been paid out for work already under way or completed.

Cumulated Figures



*Appropriations, contract authorizations, R. F. C. commitments, and British orders in the United States.

© BUSINESS WEEK

Defense Inventory

Survey shows where we stand as tooling-up period ends and where we are going as big production speedup begins.

The United States has reached a turning point in its defense program. Up to now, the great effort of Washington and of business has been to design new war materials and to build and equip new factories and shipyards. But, beginning this month, there is a shift in emphasis from building manufacturing plants to turning out guns, planes, and ships.

The progress that has been made in building America's productive plant, coupled with Washington's determination to intensify aid to the democracies, means that the real speedup is at last at hand. Regardless of who gets hit—and both owners and workers in the consumer-goods industries stand in the line of fire—the Administration is determined that from now on the United States shall be the "arsenal of the democracies" in fact as well as name.

• **For Faster Action**—Thus far, the United States appears to have fallen far short of its boast. Up to the end of August, less than \$10,000,000,000 of war supplies had actually been produced—not even a third of what had been ordered. However explainable such a showing might be in the "tooling-up" period, Washington's new program is aimed at a drastic cut in the lag between appropriation and finished article.

The United States dates its real defense effort in this war from June of last year when Congress, shocked by the capitulation of France, voted its first emergency defense budget, and Washington buckled down principally to the job of building a huge airplane industry, enlarging the Navy, and preparing for this country's first peacetime conscript army. By August, 1940, this country had embarked on what seemed to be a staggering \$16,000,000,000 defense program.

• **60 Billions Appropriated**—Since that time, appropriations have grown to more than \$60,000,000,000 (chart on this page) and the President last week asked for an additional \$6,000,000,000 for lease-lend aid. But that is not the end. Washington already is talking frankly of the need for at least a \$100,000,000,000 program before the job of defeating the Axis is completed.

Spending this money has proved to be a bigger job than most people expected.

By the beginning of this year—six months after the start of the program—less than \$12,000,000,000 had reached the contract stage and deliveries totaled

less than \$2,000,000,000, much of this in the form of new factories. At the end of the first twelve months, contracts had still only reached the \$24,000,000,000 mark, and deliveries had inched up to \$8,000,000,000. Currently, contracts stand at the \$35,000,000,000 level, and production figures—still including a good deal of plant construction and equipment and little actual war gear—are running at the rate of a little more than \$1,000,000,000 a month. They are expected to reach a peak, according to Leon Henderson, of 2 to 2½ billions by July, 1942.

• **Where the Money Goes**—Biggest share of the appropriations—nearly \$25,000,000,000—goes to the Army. The Navy—including the merchant marine—received \$17,000,000,000. The Reconstruction Finance Corp. has received nearly \$8,000,000,000 to finance, among other things, defense housing and factory expansions. Lease-lend funds already appropriated amounted to \$7,000,000,000. The British have spent more than \$3,674,000,000 of their own funds, either for purchases before lease-lend came into operation or for supplies not covered by lease-lend.

Of all the defense industries, aviation has probably made the most spectacular gains. Starting two years ago, with a business no bigger than the candy-bar industry in this country, airplane production today rivals the automobile industry in size. By late fall, employment will pass 500,000.

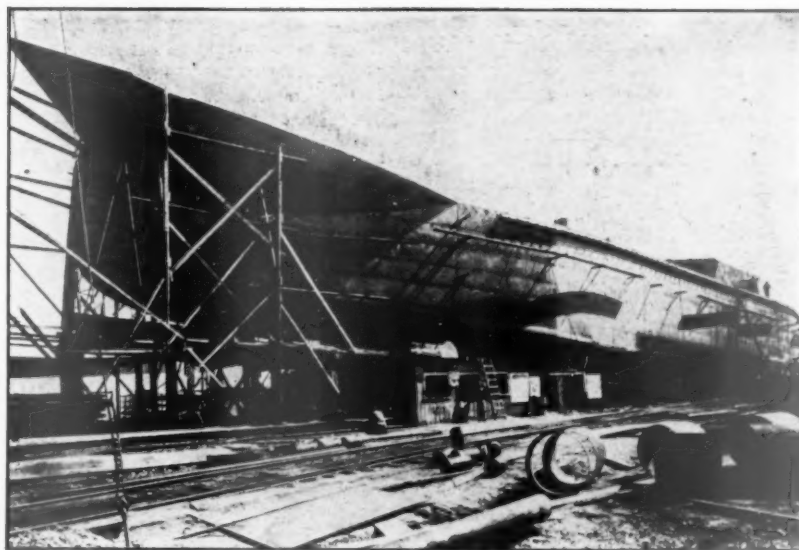
• **Steady Expansion**—Britain and France gave the industry its first boost when they placed huge plane orders in 1939 and helped finance plant expansions. In December, 1939, the entire industry produced no more than 200 military planes. By July, 1940, this had been boosted to 500 planes a month, and to 1,000 at the beginning of 1941. Latest monthly output figure was 1,854, but by December this will be boosted to 2,500. Some time late next spring it will pass 3,000, including a steadily increasing percentage of heavy bombers.

Goal of the present defense program is 60,000 planes. Insiders in the industry estimate this year's production about like this:

	Jan.	Aug.	Dec.
	(Monthly total)		
Trainers	600	800	1,000
Pursuit planes ..	200	530	700-800
Bombers, light ..	25	150	250
" medium	150	250	350
" heavy ..	25	70	100

• **Engine Production**—Engine output has never been a serious problem since the expansion program got under way. More than 100,000 engines are on order but production has never failed to keep up with the rest of the industry and as many as 1,000 engines have been exported to Britain in a single month.

The only serious bottlenecks in the industry now are in propeller and instrument production. At the Glenn L.



The Sea Otter, first of the new type of armed cargo ship announced by the Navy last week, is close to completion at the Livingston Shipbuilding Co. yards in Orange, Texas—and already a government corporation has been set up to put the Sea Otters on a mass production basis. Small (270 ft. long), and light (1,900 tons), the ships can carry 1,500 tons of cargo. They are simple, though revolutionary, in construction—with flat bottoms, and

propellers mounted amidships. They are cheap in cost and upkeep, being powered by 16 standard six-cylinder gasoline engines. They ride low in the water and have such a shallow draft that they will be tough targets for both submarines and surface raiders. Also, this feature makes it possible to build them inland and float them downriver. Navy engineers expect the Otters to be turned out in two months' building time.

Martin plant near Baltimore, 100 big bombers are lined up in a field waiting for steel propellers. But by the end of the year, G.M. will have ironed out this bottleneck when its big new propeller plant gets into full production. By late spring Nash-Kelvinator will also be in production on a licensing basis.

• **Auto Company Role**—Most spectacular developments in 1942 will be the beginning of mass parts production in automobile plants, the opening of four huge government-owned assembly plants in the Middle West, and the opening of the Ford bomber factory at Ypsilanti, Mich. By 1943, most big auto companies may be ready to go into production on engines of their own design.

Next to the aviation industry, ship builders have probably done the most spectacular job. The Navy has ordered 2,831 ships since July 1, 1940, to cost \$7,234,262,178. In addition, it has allocated \$460,000,000 for additional shipways.

• **For the Navy to Date**—Last year, 156 keels for naval vessels were laid down, 60 ships launched, and 47 (including one aircraft carrier, 18 destroyers, and five submarines) completed.

So far in 1941, keels for 436 vessels (including two battleships, 57 destroyers, and 18 submarines) have been laid,

249 launched, and 213 completed. The 35,000-ton battleship Massachusetts was launched this week.

The merchant-marine program is only a little less spectacular. In 1939, 28 vessels totaling 241,052 tons were launched. Last year this was boosted to 53 totaling 444,000 tons, and in the first eight months of this year, 58 ships totaling 477,000 tons have gone down the ways. Under construction on Sept. 1 were 947 ships of 5,851,000 tons, out of the total merchant marine program of 1,300 ships totaling 13,000,000 tons. Included in the program are 60 "ugly duckling" freighters for Britain, the first of which was launched last month. The Maritime Commission has also ordered 312 of these vessels, and orders for another 418 will be placed as soon as ways are available.

• **Tank Output**—Tanks pushed into the limelight last month when Lord Beaverbrook, on his recent visit, asked for speedy deliveries. This country's production record in 1941 is good, though monthly output is still relatively low:

	Jan.	Sept.	Dec.
Tanks, light (13-ton)...	90	225	225-300
" medium (25-ton)...	0	130	200-225
" heavy (50-ton)...	0	0	?

Light tanks are on a mass production basis at American Car & Foundry Co.,

medium tanks at the big new Chrysler tank arsenal. Both Baldwin and American Locomotive also turn out some medium tanks and Baldwin is experimenting with a 55-ton for the Army. Tank production is expected to soar to 1,000 a month by next July, with General Motors coming into the picture on an assembly basis.

The ordnance and munitions program is picking up momentum. Briefly, here is the way it shapes up:

- **Machine Guns**—Biggest producer is General Motors, with \$61,398,000 contract. Production plants are at Flint, Syracuse, Dayton, Saginaw. Other main producers: Savage Arms, Colt Patent Fire Arms, Kelsey-Hayes Wheel Co. Current production covers all current needs, will reach 30 machine guns every hour on a 7-day week by next April.
- **Antiaircraft Guns**—Production is still low, is due for a speedup late this year. Big producers are General Motors (Pontiac), Hudson, Chrysler, Koppers, and Colt.
- **Garand Rifle**—Production is up from 200 a day in summer of 1940 to more than 1,000 a day now.
- **Heavy Field Guns**—More than 17,000 are on order. Production, at 60 a day, is fair, is due for a boost early next year.
- **Small Arms Ammunition**—Production at present is very low but should touch 38,000,000 rounds a month by the end of this year.
- **Heavy Munitions**—Production is good, with new smokeless powder plants now boosting supply. Edward G. Budd Co. is said to be turning out 10,000 bombs a day after making its second million shells in 58 days compared with eight months for the first million.

Raw materials may cause delays in the defense program as it rises to peak production next spring, particularly if foreign supplies of some strategic materials are cut off. Here is the situation:

- **Aluminum**—Compared with total output of 327,000,000 lb. in 1939, current production is at the rate of 680,000,000 lb., is scheduled to touch 850,000,000 by mid-1942. Adding scrap and 340,000,000 lb. of Canadian imports, total available aluminum supply in 1942 is expected to reach 1,600,000,000 lb. Since this makes no allowance for civilian use, and no provision for supplies to Russia—where aluminum is badly needed—it may be necessary to boost production further if defense consumption is not to be curtailed.
- **Magnesium**—With present output barely at the rate of 50,000,000 lb. a year, the industry is not likely to reach its goal of 400,000,000 lb. in 1942. No serious aviation bottleneck is expected because present aviation uses are restricted, but incendiary shell production may be affected.
- **Copper**—Current consumption exceeds current domestic production plus imports, but there are enormous supplies held privately in the form of semi-fabricated goods which can be commandeered in an emergency.
- **Tin**—Small stockpile of ore accumulating for smelting in Texas. Estimated year's supply in hands of private industry.
- **Manganese**—Estimated 15 months' supply in country, with fair reserves available in Cuba.
- **Chrome**—Small stockpile accumulated, and some reserves held by private industry. Supply inadequate unless supplemented, mainly from Philippines.
- **Tungsten**—Supplies are stated to be available to cover year's needs.

Housing Priorities

OPM plan assuring ratings for 200,000 homes for defense workers regarded as victory for private builders.

Priorities for defense housing, long expected and late arriving, have finally come through in the form of an OPM program to assure preference in obtaining building materials for 200,000 privately-financed defense housing units. Key to the delay in the program has been OPM's reluctance to give the green light to a project requiring so much badly-needed material. Though the program as outlined by OPM may later be changed, there is very little likelihood that the 200,000 figure will be revised upward. In fact, Defense Housing Coordinator Palmer's office, which pushed the program, is more than pleased with the number decided on and figures it has won a victory for private housing.

The new procedure provides for the granting of project preference ratings for essential housing in specified defense housing critical areas (OPM lists some 325 areas in 46 states and four territories). Highest ratings will be assigned to defense projects which were under construction on Sept. 1 and to plans for remodeling and rehabilitation. Lower ratings will be granted to new construction for renting purposes, and a still lower rating to new construction for sale. All ratings, however, will be in the defense, or "A" class.

• **The Prerequisites**—Ratings will differ for different localities, depending on what the Defense Housing Coordinator and OPM's Priorities Division believe to be the degree of urgency involved. The Priorities Division will assign a rating that can be used to secure delivery of scarce building materials appearing on a new Defense Housing Critical List.

To qualify for priority assistance under the new plan, construction must be confined to family dwelling units of a value not in excess of \$6,000, if for sale, or for which the monthly shelter rental will not exceed \$50. Exceptions will be permitted only in special circumstances, and then only on individual consideration. Other prerequisites for securing a rating: Homes involved must be readily available to defense workers at locations convenient to their employment; they must conform to minimum standards set by the Housing Coordinator and use minimum quantities of scarce materials.

• **How to Get a Rating**—In order to obtain a preference rating for a project, a private builder, must first file an application with the local office of the Federal Housing Administration. Though FHA has no connection with the de-



REYNOLDS ALUMINUM

The Longview, Wash., plant of the Reynolds Metals Co. produced its first cartload of aluminum ingots last week. Rushed to completion so it

could start turning out aluminum for defense, the plant has gone into production less than six months after the time the 400-acre site for it was chosen. It has a rated capacity of 60,000,000 lb. of ingot aluminum a year.

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Ryerson Certified Steels Help Build Airacobras

When stepped-up production schedules for these speedy fighter-planes demand quick shipment of uniform, high quality steel, Bell Aircraft Corp. calls Ryerson. Special sheets . . . alloys . . . hot and cold rolled bars . . . strip steel . . . tool steel . . . stainless steel and many other Ryerson products vital to America's Emergency are used by Bell in building the Airacobras.

Stocks at the 10 Ryerson plants are reason-

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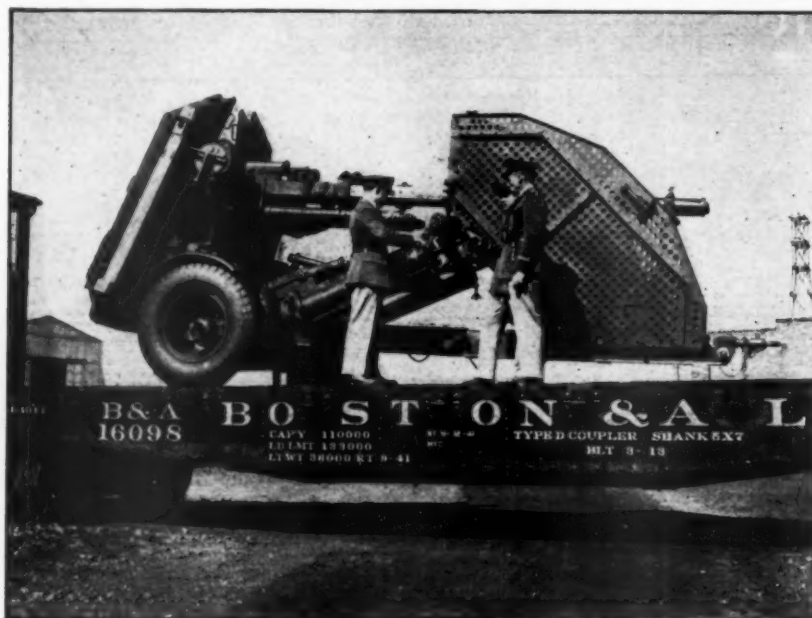


STEELS

fense housing setup, OPM is making use of its established facilities. Applications will then be reviewed by the Defense Housing Coordinator, and, if approved, will be submitted to OPM's Priorities Division with the recommendation that the project be assigned a project preference rating. Certificates of rating will be extended by the field offices of the Priorities Division. Once a rating has been granted a builder, he can extend it by executing a copy of the order and serving it on his suppliers. The suppliers in turn can extend the rating to their suppliers in the same way.

- **The Critical List**—Ratings apply only to deliveries of materials specifically on

the Defense Housing Critical List, and only for such quantities as the Priorities Division shall permit under orders granted. The critical list is divided into six general categories: steel and iron; electrical supplies; plumbing and gas distribution systems; heating and ventilating equipment; household equipment; and land development items. The hundreds of items included are specifically described in the list. Any material under general priority control which is not on the housing critical list, and which a builder deems essential for a given housing project, will be handled as an independent item for priority consideration by Washington.



GUN MOUNT

The first factory-made mount for a 90-mm. anti-aircraft gun, hailed as the U. S. Army's best, was completed by



Allis-Chalmers Mfg. Co.'s LaPorte, Ind., works last week and turned over to the Ordnance Department. The complete unit contains 3,858 parts, but weighs only nine tons because it is chiefly made of high-tensile, low-alloy steel, and folds into a compact unit for hauling by truck, tractor, or train (above). It can be unlimbered from traveling position and put into effective fire within six minutes.

Allis-Chalmers received the contract last December and hustled into production by adapting its existing equipment to the task. It also farmed out \$2,600,000 of its \$6,500,000 prime contract to 229 subcontractors. Approximately one-third of the floor space at the LaPorte works is now being used for gun-mount manufacture, or about 450,000 sq. ft. The remainder of the Allis-Chalmers plant continues to turn out agricultural and road-construction machinery.

Defense in Action

That's dominant note as New York exposition begins its 30-day run. Subcontractors find jobs waiting for them.

Before its scheduled 30-day run at Grand Central Palace, New York, is completed on Oct. 18, the first civilian and National Defense Exposition, which opened on Sept. 20, has every chance of snowballing from an encouraging start into an all-time Palace attendance record. Just as soon as the youngsters, and oldsters, begin to appreciate that they can manipulate the aiming controls of an antiaircraft gun with their own hands (and there's an actual airplane hanging from the ceiling for them to aim at), don a gas mask for the questionable joy of spending four minutes in a chamber filled with tear gas, and get the latest dope on all sorts of defense activities, steadily increasing crowds are expected.

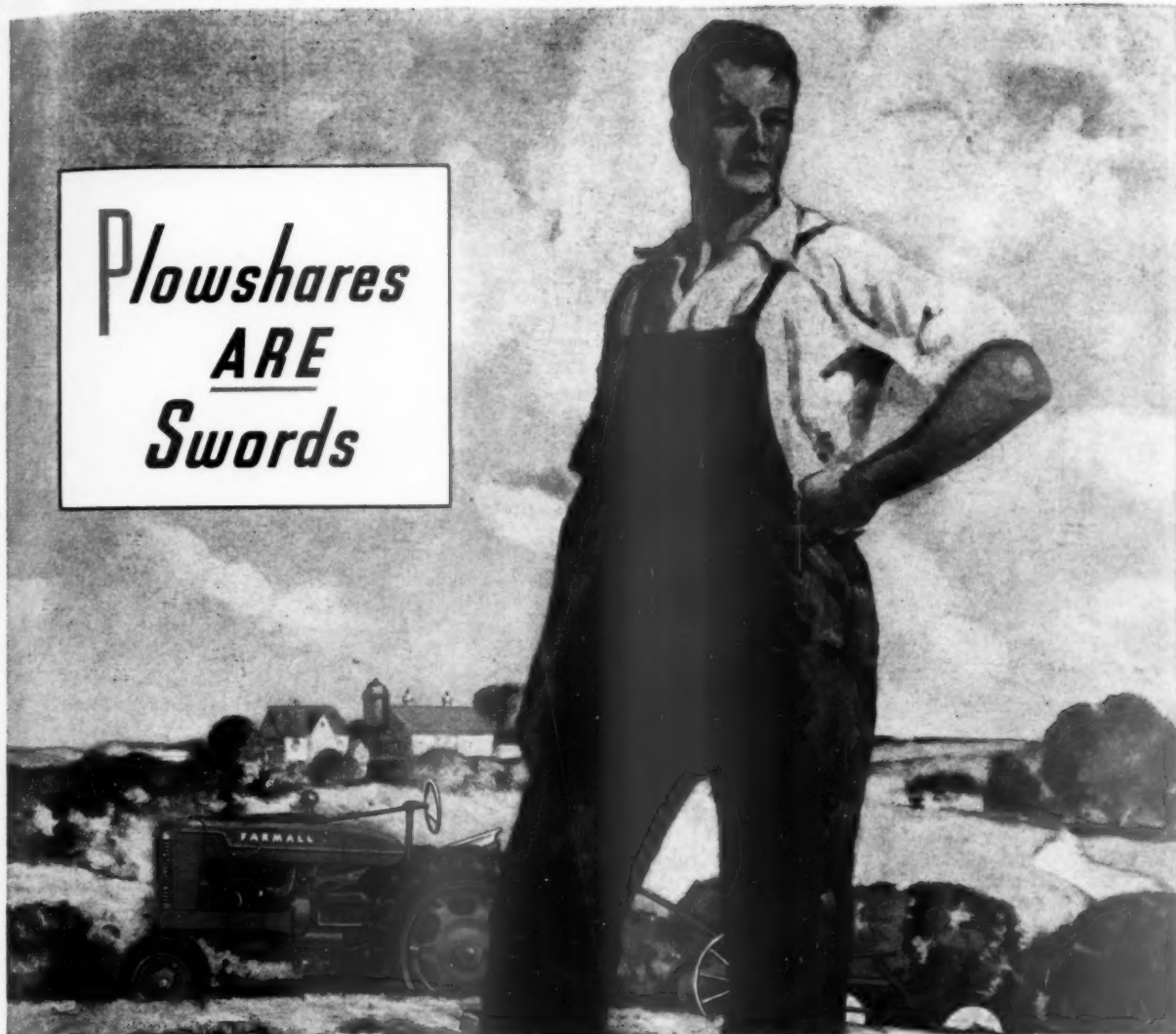
- **Tear Gas Trouble**—On opening day there were some disappointments. The tear gas had a way of leaking from the chamber (officially it is chloracetophenone gas, and it smells like apple blossoms) and getting into the eyes of visitors, but two days later, the demonstration was functioning tearlessly on a schedule of 24 gas-mask tests per hour.

The 60-ft. "PT" mosquito boat which the Navy had been expected to provide could not be spared, but a Curtiss-Wright naval scout plane came on as a substitute. An Army tank menaced the main entrance. On the top floor was an incredibly bombed-out bedroom, brought to the show and set up by the British. With three dozen or more commercial exhibits, things to see were so plentiful that show-goers are finding a single visit insufficient for complete coverage. Appreciating this a bit belatedly, certain manufacturers who hung back from engaging space in advance are now urging the show management to squeeze their exhibits in somehow.

- **Production Clinic**—In one unusual detail, the management slipped up, in that it scheduled the three-day National Defense Production Clinic for Sept. 22-24, the first two days of which conflicted with the Jewish New Year. Even so, over a thousand potential subcontractors (some from as far west as Seattle) came on the first day to confer with more than a hundred prime contractors. Representatives of big prime contractors like Consolidated Aircraft also came on from the West Coast. Metal Products engineers came from Florida with samples of their bomb parts. Stewart-Warner production executives came from the Midwest.

More subcontractors showed up on

Plowshares ARE Swords



MODERN WAR is a battle for materials. To check the life-giving flow of materials, British warships ring the European continent while German bombers and submarines encircle Britain.

Beyond comparison, the most vital of materials is food. Unlike steel or copper, aluminum or rubber, food has no substitutes. We have it or we do not have it. With it, all things are possible. Without it, tanks and planes can give no security. If the defense of America is to be certain, food for 130,000,000 Americans, and those who stand with us, must come regularly to market.

Today, as always, the production of that food is the task of American farmers. Today, more than ever, American farmers are relying on the farm equipment industry to provide them with the mechanized tools of agriculture. For, while the need for farm products rises, the supply of farm labor constantly dwindles as men

are diverted to the Armed Services and the factories.

This Company and the industry of which it is a part have the factories, the trained employees, the engineering skill, and the distributing organizations to get these vital tools to the farmers of America where they need them and when they need them—*subject only to the allocation of materials.*

Swords are beaten into plowshares when peace follows war. Today, throughout the world, plowshares are beaten into swords... In America, the greatest food-producing country in the world, it is well to consider that **PLOWSHARES ARE SWORDS!**

Fowler McCormick
President

INTERNATIONAL HARVESTER COMPANY, CHICAGO, ILL.

INTERNATIONAL HARVESTER



Standing in the shadow of a 2,000-lb. bomb, an Army officer applies a flaming torch to a lady. She's in a fireproof and concussion-proof suit though—and it's all part of the Civilian and National Defense Exposition.

the second day, and before the third was ended, the greater part of the 3,500 for whom "analytic admission cards" had been prepared in advance (BW—Sep. 20'41,p62) had laid their facilities before the prime contractors. On the first day, a subcontractor, who had not registered his facilities in advance, showed up apologetically at the registration desk with the question, "Do you suppose any prime contractors would be interested in filling up my 20 automatic screw machines?" Would they? He was quickly signed up for duration.

Another hesitant subcontractor with a dozen or more work-hungry sewing machines had a choice of three prime contractors before ending registration.

• **Defense Displays**—Almost without exception, the commercial exhibitors linked their displays with one or more phases of national defense. Coty, for example, showed no perfumes, but contributed a beautifully decorated booth to the sale of defense stamps and bonds. International Business Machines not only showed how its office devices speeded much needed production, but displayed the parts it is making for 20-mm. automatic aircraft cannon.

Otis Elevator exhibited only the airplane engine crankcases, gun recoil mechanisms, gun mounts, machine tools, etc., of its manufacture. American Locomotive featured both tanks and locomotives. Pitney-Bowes played up the savings in time and stamps embodied in its Mailomat, the new coin-operated U. S. letter box and postage meter which handles any mail matter from penny postcard to airmail special.

Bucking the Army

Drug manufacturers are reported unwilling to sell direct to post exchanges. Revamped system has price difficulties.

The Army program for revamping its post exchange system (BW—Jul. 5'41, p25) has hit a snag with plenty of splinters in it. Post exchanges are the stores at Army camps from which the soldiers get cigarettes, candy bars, and other nonmilitary merchandise at prices about 10% below those of civilian stores. Buying of drug items by the key office of the Purchases Division, Army Exchange Service, in New York is deadlocked over the question of whether supplies are to be furnished by the manufacturers direct or through their wholesalers.

Orders are that the Exchange Service must purchase from manufacturers so that the soldier can buy goods at the lowest possible prices. Difficulties have arisen when manufacturers have attempted to protect their regular avenues of distribution by insisting that sales to the Army be made via the jobbers. Manufacturers also heed the cries of retailers who will be undersold by the exchanges. Importance of the deadlock between the buying office in New York and the drug manufacturers lies in the fact that this office furnishes the price yardstick for the whole huge system of Army exchanges.

• **Price Agreements**—The principal function of the New York purchases office

is the negotiation of price agreements with manufacturers. Manufacturers agree to maximum prices at which they will sell to all exchanges. Copies of the contracts are sent to each Army exchange to serve as buying guides to the manager.

If local sellers can match or better the manufacturers' contract prices, buying will be done locally. If not, the exchange will order directly from the manufacturer. The New York office itself does not buy for exchanges in the U. S. proper but does buy for exchanges established outside the country, as in Iceland and Greenland.

The New York purchasing office reports that in most lines manufacturers have agreed to sell direct. In the case of the drug makers, the military men say that the refusal to sell has not been absolute, but that there has been so much making of excuses that it amounts to the same thing. The Army hesitates to open up a big-scale attack, since its buyers are instructed to interfere as little as possible with established channels of trade.

Manufacturers who have contracts calling for exclusive distribution through wholesalers find themselves in a hole. They hope that Army objections to buying through jobbers can be overcome by making such middlemen their legal agents, and some manufacturers are reported working out that kind of contract now.

According to this arrangement the jobber would receive a commission on Army sales, probably 10%. It is reported that sales of drug items now are being made to the Exchange Service (though not to the New York office).

What Post Exchanges Sell

Candies—bars, boxes, bags, bulk, rolls, etc.

Clothing and shoes—uniforms, shirts, pyjamas, underwear, shorts, ties, caps and hats, belts, suspenders, garters, shoes, boots, leggings, slippers, insignia, raincoats, gloves, sport clothing.

Drugs and sundries—dental supplies, shaving supplies, hair and scalp tonics, foot aids, first-aid kits, soap, rubber goods, creams, powders, manicure sets, etc.

Fountain—ice cream, soft drinks, cookies, crackers, etc.

Gasoline and oils—regular and premium gasoline; Pennsylvania, Mid-continent and Coastal or Western oil; cup, high-pressure, hypoid, transmission and differential, and water-pump greases.

Groceries—canned and packaged goods, meats, vegetables, fruit.

Hardware and electrical supplies—tools, waxes and polishes, furniture and builders' supplies, knives, scissors, light bulbs, wire extensions, sockets and plugs, flashlights and batteries, reading

lamps, appliances, radios (console, table, portable), radio tubes, phonographs (portable and combination).

Jewelry and souvenirs—novelty jewelry, rings, watches, picture frames, etc.

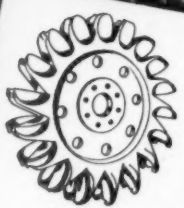
Notions—buttons, thread, combs, needles, sewing kits, bobby pins, safety pins, shoe-shining equipment, mirrors, sheets, pillow cases, towels, handkerchiefs, chamois, sponges, etc.

Sporting goods and luggage—baseballs, footballs, softballs, basketballs; tennis, golf, and table-tennis equipment; athletic clothing, photo supplies, camping equipment, sleeping bags, mattresses and pillows, camp furniture, fishing tackle, vacuum bottles and kits, suitcases, gladstones, lockers and trunks, cross-country bags, airplane luggage, key cases, brief cases, zipper bags.

Stationery—writing paper, ink, envelopes, notebooks, scrapbooks, pens, pencils, blotters, pads, etc.

Tobaccos—all kinds of tobacco, lighters, fluid, pipe cleaners, pouches, ash trays, matches, etc.

Nature's Powerhouse



Nature's resources, harnessed by the genius of man, are helping to keep America free. From the most remote mountain tops comes the kinetic energy of melted snows . . . awaiting the application of engineering genius for the production of electric power.

Pelton's part in the national defense is the design and construction of hydraulic prime movers for most efficient use of the nation's vast water resources, a purpose to which our extensive engineering and plant facilities are unreservedly devoted.

The Pelton Water Wheel Company, 2929 Nineteenth St., San Francisco, California. Subsidiary of The Baldwin Locomotive Works.

THE BALDWIN GROUP



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 THE MIDVALE COMPANY • CRAMP BRASS AND IRON FOUNDRIES DIVISION

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through wholesalers and that the Army is being given prices equal to those of the most favored customer.

• **"The Boss of this Job"**—The New York headquarters of the Purchases Division, at 111 Eighth Ave., is in command of Lt. Col. F. S. Mansfield, whose collar bears the crossed gold rifles of the infantry.

"There's the boss of this job," he says, indicating the small figure of a private soldier on his desk. "I'm seeing to it that this man, who is paid \$21 a month, gets the best value possible for his money. There is no better way to improve Army morale than for us to show the soldier that we are taking care of his interests, to make him feel that he is getting some privileges in return for his sacrifices."

"Most manufacturers are cooperating though it sometimes takes persuasion. When we started asking bids on candy bars, we were told to go to the jobbers. We did and were quoted a price of 80¢ for 24 bars. That is three bars for 10¢—just what you would pay at a New York drug store. How could we offer candy to that \$21-a-month soldier at the same price he would pay in a civilian store that must include a high rent in its costs? Candy manufacturers saw the point and are now selling us direct. The exchanges sell a 5¢ bar for 3¢ now."

• **Tax Factor**—Men at outlying posts for whom Col. Mansfield's offices does the buying, fare better on prices than their buddies in the states. This is because the off-shore supplies pay no domestic excise taxes. Thus the soldier stationed at the foot of Greenland's icy mountains gets a pack of cigarettes for 6¢ and a can of beer for 10¢. In a U. S. camp he would pay 12½¢ and 15¢. For its off-shore service, the Army is buying beer for as little as \$1.09 for 24 cans. Many shipments to off-shore posts are sold at especially low rates because they are carried free on Army transports. Col. Mansfield is attempting to get regular as-

signments of space on transports for this class of freight.

The New York buying office of the Exchange Service operates in four divisions: (1) candies, cigarettes, kindred items; (2) uniforms, other clothing; (3) tooth paste, toilet goods, other drug items, stationery, general merchandise; (4) equipment. This last division furnishes ice boxes, show cases, etc., for the exchanges themselves. Col. Mansfield is a regular Army man, but the heads of his divisions have been commissioned from private businesses. Thus Capt. R. E. Cooper (candies and tobacco) comes from a West Coast office of Montgomery Ward, and Capt. John B. Furay (drugs, etc.) formerly was a Kresge man. So far, these men have negotiated agreements with 71 manufacturers covering hundreds of items.

• **Price Problem**—The siege on drug store goods is one reason why the post exchange system is taking so much time to fix the prices at which merchandise may be sold in more than 300 camp stores. The Army Exchange Service has the authority to set maximum prices at all exchanges, but not enough is known yet about costs of operation to enable them to issue definite price schedules covering every class of goods. Until this information is at hand—the finance and control division of the Service is up to its ears in the cost surveys now—camp stores will be asked to continue holding their prices around 10% below those prevailing in civilian stores near the Army posts.

Following recommendations of the five-man committee formed last winter to advise the Army on its exchange system (BW—Mar.22'41,p56), the Army Exchange Service was set up, under direction of Lt. Col. John E. Grose, with four principal branches—Operations, under Maj. Clifford Templeton; Personnel, under Maj. F. O. Britton; Audit and Control, under Col. Will I Levy; and Purchases, under Col. Mansfield.

Add Auto Debuts

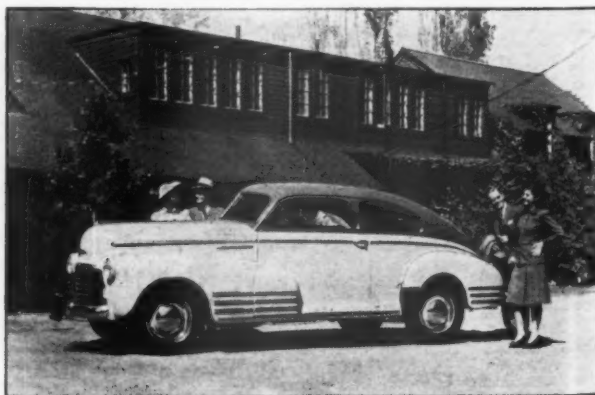
Chevrolet, Buick, De Soto join the '42 model parade with restyled lines. Ford models are to appear shortly.

The automobile industry made public another chapter of its 1942-model yearbook this week, as Chevrolet, Buick and De Soto joined the style parade (BW—Sep.13'41,p20; Sep.20'41,p26). With the new Plymouth already on exhibit, Ford remains, traditionally, the last of the Big Three to show its new wares—but announcements are due next week.

Chevrolet passenger models have been restyled to include long, sweeping fenders which break at the front door—a General Motors style trend pioneered last week by Pontiac. In addition, one new model, a six-passenger sedan called the "Aerosedan," has been added to the division's "Fleetline" series, originally introduced in midseason this year. Wheelbase on "Fleetline" models will again be 116 in., while, inside, hardware, interior trim, and upholstery patterns have been redesigned. Speedometer and clock pointers, for example, are made of a new fluorescent plastic which concentrates the glow from instrument lights.

In addition to the "Fleetline" series, Chevrolet will plug its special deluxe and master deluxe lines, each in six models. Mechanical specifications of all passenger cars are virtually unchanged, and at a time when many producers are having to shift from aluminum to cast-iron pistons, Chevrolet's 21-year usage of the cast-iron variety stands it in good stead.

• **Buick Price Rise**—Buick has restyled all of its six lines, has added a number of mechanical improvements—and prices



Following the style trend to low and long, sweeping lines, both the 1942 Buicks (left) and Chevrolets feature fenders that carry contour lines

through front and rear doors. On the Buick, wide, low radiator grilles, heavy bumpers, and added seat widths are among the new design features.

Chevrolet is also designed for massive appearance, with heavy bumpers and guards, lower and wider radiator grilles, and wider-spaced headlights.

Road Show On Wheels



YOU'VE got the best seat in the house... right down front! And all the world's entertainment talent performs when you turn the knob on the radio in your car. Music, comedy, news, drama, sports—you have them wherever you go because of the part that Mallory plays more than 12,000 times a minute, every minute you use your automobile radio!

For this road show of yours could not go on without the device known as a Mallory Vibrator. It takes the 6-volt charge of your car's storage battery and prepares the current so that it may be "boosted" high enough for radio operation. To do this, the Vibrator's tiny reeds have to make and break contact more than 12,000 times every 60 seconds!

Delicate and sensitive though the Vibrator must be, Mallory research has given Mallory Vibrators strength to resist road shock, motor vibration, and normal wear beyond all others. Small wonder, then, that America's leading manufacturers of automobile radios make Mallory Vibrators standard equipment!

The dependability and long life of these Vibrators are recognized in many other fields, too. Aircraft communication equipment, public-address systems, radio-equipped police patrol cars, neon signs... these are a few of the appliances which rely on Mallory Vibrators to supply them ample power from a low-voltage battery.

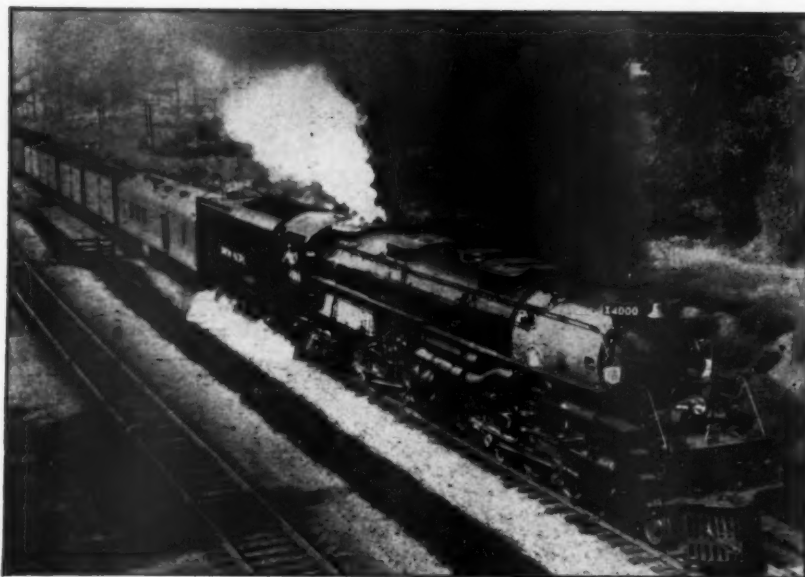
In your industry, also, Mallory plays a part—either supplying materials for manufacturing processes or supplying finished equipment to be incorporated on the production line. In either case, Mallory plays its part to *your* advantage!

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SERVES THE AERONAUTICAL, AUTOMOTIVE, ELECTRICAL, GEOPHYSICAL, RADIO AND INDUSTRIAL FIELDS WITH... ELECTRICAL CONTACTS, WELDING ELECTRODES, NON-FERROUS ALLOYS, POWDERED METAL PRODUCTS AND BI-METALS... RECTIFIERS, DRY ELECTROLYTIC CAPACITORS, SPECIAL HIGH RATIO ANODE PLATE CAPACITORS, VIBRATORS, VITREOUS RESISTORS, POTENTIOMETERS, RHEOSTATS, ROTARY SWITCHES, SINGLE AND MULTIPLE PUSH BUTTON SWITCHES, POWER SUPPLIES, BATTERY BOOSTERS AND CHARGERS



(ONE OF 20) LARGEST

When Union Pacific's \$250,000 locomotive, No. 4000, made its maiden run last week, dragging a long string of freight cars over the mountains between Green River, Wyo., and Ogden, Utah, it was the first time a U. P. engine had negotiated such a load over this hump without a helper

engine. No. 4000 was built by the American Locomotive Co. to perform this task. Rated to develop 7,000 hp. and do 80 m.p.h., it was claimed to be the world's largest and most powerful locomotive when completed last month. That claim is out now though: three more just like it have since been finished, and 16 more are scheduled for delivery at the rate of one a week.

are up from 8.9% to 15.9%. Changes include improved compound carburetion, shot-blasted connecting rods, "oil-cushion" finish on crankpins, softer rear springs, shock-absorber recalibration, and wide-rim wheels. Iron alloy pistons are now specified for most models, but aluminum pistons will be continued on Buick's top-price models, the Series 60, 70, and 90. Wheelbases have been lengthened on Series 50 and 70 models.

Among the car's gadgets is a "StepOn" parking brake, operated by a small pedal at the extreme left of the driver's compartment, and designed to eliminate reaching under the dash and to provide more positive action. All models will be equipped to use a "venti-heater" for automatic temperature control in winter and maximum ventilation in summer. The system will be standard on the Series 90 and optional on all other lines.

• **Added Horsepower**—Under-the-hood changes have stepped up De Soto's rating to 115 hp. and an improved version of fluid drive and Simplimatic transmission will be available on all models at extra cost. "Personalized" interiors can be ordered by customers through a wide choice of upholstery fabrics. Sealed-beam reflector headlights are recessed into front fenders and are protected in daytime by sliding panels.

Amortization Jam

Tax measure intended to encourage private investment in defense plants snags on red tape and is up for overhauling.

Intended to encourage private investment in defense plants, the tax amortization law over which Congress sweated for three months in the summer of 1940 has been an almost complete failure. An amending bill is now pending. Meanwhile the fact stands out that the overwhelming proportion of plant expansion has been government-financed—\$3,293,033,000 as compared to \$899,462,000 from private sources (BW—Sept. 13'41, p24).

The amortization law—Title III of the Second Revenue Act of 1940—permits manufacturers who install new facilities necessary for defense to deduct from their net taxable income, each year for five years, one-fifth of the cost of the new facilities. That is, for tax purposes, the contractor may amortize his plant in five years (Report to Executives, BW—Mar. 15'41, p46). However, defense officials and congressmen who feared a wholesale giving away of plants

by the government imposed a condition upon this privilege.

• **Certificates**—The law requires that a contractor obtain a Certificate of Necessity saying that the new plant is needed for defense. If he is not being reimbursed for the plant, the law allows him to apply for a Certificate of Non-reimbursement which says so. If he is being reimbursed, the manufacturer must obtain a Certificate of Government Protection, saying that the equity of the government in his plant is protected, before he can take advantage of the rapid amortization privilege.

Each certificate must be signed by the Army or the Navy and the Defense Commission. Statutory duties of the virtually extinct Defense Commission are now being handled by the Tax Certification Unit of the Office for Emergency Management.

• **Red Tape Tangle**—These arrangements have entangled the whole subject in red tape and confusion. A bill now pending in Congress is designed to remove some of the worst troubles:

(1) The bill would extend to six months from start of construction the time limit within which application may be made for the amortization privilege. The present limit is 60 days.

(2) The bill would exempt small contracts from the nonreimbursement proviso, thus eliminating much detail.

(3) The bill would entrust enforcement of the nonreimbursement proviso to the Army and Navy alone, eliminating the Defense Commission.

It should be borne in mind that subcontractors, having no contractual relations with the government, are not reimbursed and consequently do not have to get certificates of nonreimbursement, only certificates of necessity. However, only a nonreimbursement certificate will guarantee the availability of amortization privileges if a subcontractor happens some day to land even a small prime contract.

• **Governmental Impasse**—For months, the Army and Navy maintained that a contractor was not being reimbursed for his plant unless there existed an actual reimbursement contract, such as the Emergency Plant Facilities agreement (BW—Mar. 15'41, p46). The Defense Commission argued that an actual investigation must be made of the price of munitions manufactured in the new facilities to determine whether the price included a more than normal allowance for cost of plant. For six months, while the applications piled up, hardly a certificate was issued. Last May, it looked as if the jam was broken (BW—May 17'41, p15). The Army and Navy accepted the Defense Commission's position—in principle. Both services set up tax amortization units, and for some time now have been processing applications at a good rate. However, in practice it hasn't worked out. The Defense



Luxury? It didn't cost the firm an extra penny!

Next time four of you take a business trip, gang up and enjoy the wonderful comfort of a Pullman Bedroom Suite. *It actually costs less than 4 separate lower berths!*

And here's what you get . . . the grand feeling of a private room, quieter than your own office, big enough to eat dinner in, a roomy table to work on, and deep sofa seats to stretch in, and read.

At night, a partition divides your Suite into separate bedrooms—each with its own private lavatory, lots of

room for toilet articles, hot and cold running water, full length mirror, adjustable air-conditioning, and two big, comfortable berths in each room.

Total Pullman charge on typical 300-mile overnight trip for 4 people in this Bedroom Suite is only \$9.45—plus of course, your first-class rail ticket.

And paste this in your hat! Pullman is the business-like way to travel. It gets you *where* you're expected to be *when* you're expected to be there.

Have you tried these special Pullman Rooms?



ROOMETTE (for one person). A living room by day, a bedroom by night. Lots of space for dressing, a big bed, private toilet and wash bowl—hot and cold water—mirrored cabinet for toilet articles—a locker that keeps clothes fresh—and an individual air-conditioner.

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BEDROOM (for one or two people). All the privacy of a hotel room—your own toilet and wash basin—writing table—full length mirror—and wide sofa seats that turn into beds.



DRAWING ROOM (for one to five people). For traveling de luxe. 58 square feet of floor area. Separate toilet and lavatory—a table for games, working, writing—and 3 comfortable beds.

FOR COMFORT—SAFETY

AND DEPENDABILITY

Go Pullman

Amazing Performance!



That's What Thousands of Users Say About

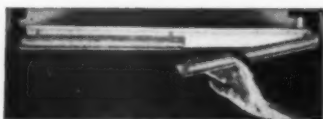
Guth FLUORESCENT LIGHTING

GUTH Fluorescent is truly "Your ONE BEST Fluorescent Buy." Scientifically engineered to the peak of performance efficiency—designed for streamlined beauty—backed by 39 years of lighting experience—our Fixtures give you the utmost in cool, comfortable, economical Fluorescent Light.

GUTH FUTURLITER (above) and the GUTH Excelux illustrated below, are only two of dozens of beautiful, modern, amazingly efficient units designed for Office and Stores.



GUTH Fluorescent Fixtures are Built STRONGER to Serve Longer!



PFC Plastic Diffuser

Add beauty and comfort to Fluorescent Lighting. Snap GUTH PFC's on bare lamps to reduce surface brightness.

The EDWIN F. GUTH COMPANY
2615 Washington Ave.
St. Louis, Mo.

Guth

"LEADERS IN LIGHTING SINCE 1902"

Amortization Scorecard

Status of Certificates of Necessity, Government Protection, and Non-Reimbursement, as of August 31, 1941

Certificates of Necessity	War	Navy	Total
Received	3,416	1,282	4,698
Approved	1,674	650	2,324
Disapproved or withdrawn	*	*	90
Certificates of Government Protection			
Received	144	139	283
Approved	19	43	62
Disapproved or withdrawn	24	4	28
Certificates of Non-Reimbursement			
Received	1,463	1,067	2,530
Approved	115	35	150
Disapproved or withdrawn	182	17	199

* Not available.

Data: OPM Bureau of Research and Statistics.

Commission has not agreed with Army and Navy methods of finding out whether a contract price includes any plant reimbursement, and is holding up a lot of the certificates. The situation is revealed in the table above showing present status of certification operations.

The Navy takes the attitude that no one can know as well as its own contracting officers what is a fair price for the things it buys. Its method in checking contracts for reimbursement is, essentially, to have the contracting officers review the contracts with some guidance from the lawyers in its amortization unit.

• **Bidding vs. Negotiation**—The Army takes a more sophisticated approach. Prices established by bona fide competitive bidding are regarded as intrinsically nonreimbursing. Contracts in which the price of the goods is arrived at by negotiation present a more difficult problem. In some cases, contract negotiations have included discussion between procurement officers and contractors as to whether a plant item has been included in the price. Where such discussions have resulted in a decision to exclude a plant item, this is taken as pretty conclusive evidence that there is in fact no reimbursement for plant in the price. In some cases, too, the price can be compared with prices previously paid or quoted in published catalogs. But when the negotiated contract is for a new item, it is necessary to obtain a breakdown of the price.

This doesn't mean that the War Department undertakes an audit of the contractor's books. Instead, it requires him to submit a justification of his price in general terms—so much for labor, so much for material, so much for overhead, so much for plant, and so much for profit. No attempt is made to go behind this statement.

• **Technical Flaws**—To date, all rejections by the Army and Navy of contractors' applications have been due to technical flaws. They have yet to turn

one down on the ground that there actually has been reimbursement for plant.

OEM's plant amortization unit interprets the law much more strictly. It is not ready simply to accept the contractor's allocation of his markup between plant retirement and profit. It feels that only some moderate percentage can properly be charged to profit and that the remainder is, in fact, reimbursement.

How the dispute works out will depend on the fate of the pending amendments to the law. If Congress approves them, by-passing the Defense Commission, the Army and Navy will have their own way. Nonreimbursement will become an almost purely formal conception, and practically anyone will be able to get a certificate that is binding upon the Bureau of Internal Revenue.

• **Postwar Control**—If the amendments fail, the OEM can probably win out by the mere process of refusing to issue certificates of nonreimbursement until the Army and Navy retreat. Under a really strict interpretation of the law as it stands, any contract on which the contractor doesn't go broke can be considered as involving reimbursement for cost of plant, so that nearly everyone who wants rapid amortization privileges could be forced to get a Certificate of Government Protection, which implies that the government has an equity in the plant. This would extend postwar government control of the munitions industry over the privately as well as publicly-financed plants.

No one has yet decided what stipulations ought to be included in a Certificate of Government Protection. The matter is being threshed out, and a formula is expected to emerge soon.

• **Reluctance**—Elimination of the confusion that has existed over certification does not mean necessarily that private investment in plant will no longer be retarded. In the main, industry has shown marked reluctance to put its own money into the munitions business.

"NO WONDER I WAS SKEPTICAL

...WHEN YOU
RECOMMENDED
LESS EXPENSIVE
EQUIPMENT"

No. 3—An Actual Experience
from the sales records of
COMBUSTION ENGINEERING CO., INC.



1. Plastics plant four years ago needed additional steam. Existing equipment was 3 C-E Heine Boilers, 3 C-E Type E Stokers which had been in service for 21 years. A fine record, so naturally C-E is called in.



2. Since the boilers are in first class shape, it should suffice to modernize the fuel-burning equipment. Customer favors multiple retort stokers. They're more expensive, require major changes but a sensible choice.



3. From wide experience, C-E Engineers foresee how, with only minor changes to boiler setting, grate area may be increased 25%; and larger, less expensive Type E Stokers used; same as served so well for 21 years.



4. The money to be saved appeals to the customer but he's skeptical. Will the less expensive modernization deliver the steam? Will it reach the efficiencies predicted by C-E engineers? He's still dubious... until.



5. ... the C-E salesman shows how impartial his proposal is. For C-E has multiple retort stokers, too; splendid modern design. They do offer advantages but not enough in this case to justify the higher cost.



6. Four years after the installation was made by C-E. The plant is getting the steam it needs and at higher efficiencies. Fuel savings alone had paid for complete modernization at the end of three years' operation.

The advantages you gain, by discussing your steam generating problem with C-E, are emphasized by this actual case history. The wide experience of C-E Engineers with every size and type of installation qualifies them to determine the most satisfactory and economical solution of your problem. Then with the world's most complete line of steam generating equipment at their disposal, C-E Engineers are able to recommend the type of installation that's ideally suited to the conditions in your plant.

World's Most Complete
Line of Steam Generating
and Related Equipment
for all Industrial Service



BOILERS • STOKERS • PULVERIZED FUEL SYSTEMS
FURNACES • STEAM GENERATING UNITS
SUPERHEATERS • AIR HEATERS • ECONOMIZERS
DRYING AND INCINERATION SYSTEMS
• CHEMICAL RECOVERY UNITS •

COMBUSTION ENGINEERING COMPANY, INC. 200 MADISON AVE.
NEW YORK, N. Y.

A-619

SO THEY CAN HIT THE SKY QUICKER

U. S. Army airplanes are in a mighty hurry. To save every possible refueling minute and thus shorten "ground time", hundreds of high speed tractor-trailer refueling "trains" are kept busy on Army airfields. Standard equipment on many of these units is HEWITT hose. For Army Air Corps men found that a gasoline hose which HEWITT engineers developed years ago for the petroleum marketing industry met their need exactly. On thousands of tank-trucks this HEWITT hose has proven its resistance to the solvent action of high-octane gasoline. It weighs less, handles easier, flows faster. Built of oil-proof synthetic rubber, this hose represents just one of the many ways in which HEWITT research has contributed to the efficient use of rubber in industry—and in National Defense. Another demonstration that those who lead in meeting the nation's peace-time needs, also lead in times of national emergency.



HOSE • CONVEYOR AND TRANSMISSION BELTS • PACKING
Industry has made HEWITT its largest exclusive producer of industrial rubber goods

Chiefkan on Spot

Growers of wheat that is held deficient in milling and baking qualities get warning from AAA on loan status.

Ever since a seedsman in southern Kansas developed a new variety of hard winter wheat ten years ago, which he christened Chiefkan, and claimed it would outgrow and outyield all other varieties in either good or bad seasons, an enthusiastic but relatively small group of producers has annually harvested astonishing crops of the so-called miracle grain. By so doing, they have been dealing out grief to the milling and bakery trades. Chiefkan has only one fault: as a bread grain it is, so millers declare, a second-rate chicken-feed. Dough that is made from all-Chiefkan flour produces flat, heavy loaves of bread.

• **Word from AAA**—Early this month, the grain trade heard that the Agricultural Adjustment Administration had taken its first step to discourage Chiefkan production. In a letter to local AAA committeemen and county agents, N. E. Dodd, director of AAA's western division, warned that unless growers got aboard the quality-wheat bandwagon this year, administrative changes would be necessary, particularly in regard to wheat loans.

What Dodd didn't explain, according to insiders, was that AAA had been thoroughly sold on a program to abolish Chiefkan and two lesser evils—Red Chief and Kawvalex wheat—by discounting 1942 loans on these three undesirables at 10¢ a bu., but was deterred by the rumpus over 49¢ penalties (BW—Aug. 23 '41, p17). One reason which has been advanced for the AAA's frowning on Chiefkan is that a similar loan situation in soft wheat has left the Com-



The loaf of bread on the left—made from Tenmarq wheat—won first place at the Kansas Free Fair in Topeka this month. The smaller loaf represents Chiefkan, definitely an also-ran.

modity Credit Corp. with more than 75% of all Durum wheat on its hands, with no takers.

Scrap Combine?

Five big outfits, acting as unit, seek permission to sell to British without being subject to antitrust law.

Five of the country's biggest scrap outfits have applied to the Federal Trade Commission for permission to export iron and steel scrap under the provisions of the Webb-Pomerene law, which exempts from the antitrust acts such combinations as exporters form to meet price competition in foreign markets. With all scrap under export license, and with Britain temporarily out of the scrap market following an agreement between Leon Henderson and Lord Beaverbrook, the five companies—Charles Dreifus Co., Commercial Steel & Chemical Co., Dreifus Iron & Steel Corp., the Harcon Corp., and Schiavone-Bonomo Corp.—operating as The Scrap Export Associates, Inc., are apparently pinning their export hopes on a resumption of British buying once the backlog built up prior to lease-lend has been absorbed.

• **Shipments Soon to Cease**—Last week, the Treasury stopped buying scrap for the British under lease-lend. Shipments will cease entirely as soon as present contracts with Gulf Coast suppliers have run their course. Right now, American steel producers need all the scrap they can lay their hands on, but it is a fair bet that British buying will be resumed at some future date. Beaverbrook's action to ease the domestic scrap situation is recognized as a gesture.

How Scrap Export Associates, Inc., will fare when the British come back in the market will depend largely on whether the British buy direct from producers or fill their needs under lease-lend, with the Treasury acting as intermediary. Prior to the outbreak of the war, the European steel cartel placed most of its American scrap purchases with these same five companies.

• **Treasury's Role**—After passage of lease-lend, however, the Treasury's Procurement Division went into the business of scrap purchasing for British account. The five companies submitted a joint bid to the Treasury, at one time, on which the Department of Justice, sniffing an antitrust violation, turned thumbs down. While there hasn't been any clear-cut ruling that export organizations which qualify under the Webb-Pomerene law are not eligible to bid on lease-lend business, informal opinion in the Department of Justice is that they are not, as the Treasury pays the bills.



"I never realized how much of our comfort and safety is due to **CONCRETE**

"You know, Mary, since we built this house, I've been doing a lot of thinking about concrete.

"Here we are, with concrete walls around us and a concrete floor under foot. We've been more comfortable the year 'round. You say the house is much easier to keep clean . . . and we're better protected against fire.

"But that's just the beginning. Our town has nearly all concrete streets. Driving is a lot safer now, and more pleasant, too. What's more, street maintenance costs are low. We have concrete sewers and waterworks that protect our health . . . concrete bridges that resist floods . . . a beautiful concrete city hall, built for keeps . . . thrifty concrete roads in all directions.

"It's mighty lucky for us that

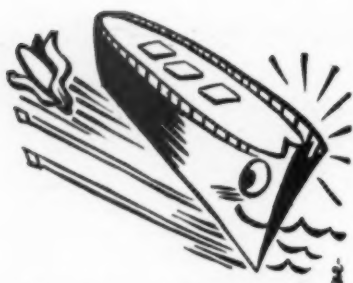
builders have such a material as concrete."

Economical, adaptable, firesafe, enduringly beautiful . . . these are the big reasons why concrete is today's outstanding construction material. Concrete is a plastic which molds into almost any shape or form, takes a wide variety of colors and finishes. On hardening, it develops great strength and rigidity. Concrete won't burn, rot or rust. It offers superior resistance to storms, earthquakes, bombs.

And concrete *saves money* because first cost is moderate, maintenance is very low and long life is assured. It is the *low-annual cost* way to build. Ask your architect, engineer or builder to tell you more about concrete.

PORTLAND CEMENT ASSOCIATION, Dept. A9d-12, 33 W. Grand Ave., Chicago, Ill.

A national organization to improve and extend the uses of concrete . . . through scientific research and engineering field work



"SHE SLIPPED ON A BANANA!"

THE luscious banana, occasionally maligned for its slipperiness, can now claim this quality as a virtue that aids our defense program. Ripe bananas, split down the middle, are used today to grease the skids for launching ships.

This novel engineering device adds a commercial use to the popular utility of bananas as a food. In 1940 the United States consumed 52,336,160 bunches—about 20 pounds per person—worth over \$29,000,000, much of it the dried, powdered fruit for ice cream flavoring, bakers' icings and fillings, baby formulas.

Hermetically sealed by discerning Nature, this nutritious tropical fruit is extensively imported by countries in the temperate zones. The AIU worldwide organization provides crop, warehouse and other forms of insurance for bananas, as well as simplified coverage in American companies for other properties and products abroad. Companies not now using this service are invited to confer with us through their own insurance brokers or agents.

We shall be glad to send you a booklet which briefly describes this service. Ask for Booklet "H"

AMERICAN INTERNATIONAL UNDERWRITERS CORPORATION

111 John Street, New York
340 Pine Street, San Francisco
Havana, Cuba Manila, P. I.
Bogota, Colombia, S. A.
Shanghai, China
Hong Kong



Defense Business Checklist

• **Steel Standardization**—Increased production of steel from existing facilities by concentration on a minimum number of steel specifications, compositions, sizes, and shapes is expected to result from a new project launched by OPM. Three national organizations—the American Society for Testing Materials, Society of Automotive Engineers, and the American Iron and Steel Institute—will work on the project with the collaboration of the War and Navy Departments, under the general supervision of OPM. Purpose of the work is not to write new specifications, but to select from existing specifications the practical minimum—to be designated as National Emergency Steel Specifications—in order to get maximum production of defense equipment.

• **Mine Repair Order**—OPM's Priorities Division has issued a maintenance, repair, and supplies plan designed to help approximately 15,000 mines boost production for defense. The order permits mining companies to use a rating of A-1-a, the highest defense rating, to expedite deliveries of materials needed for emergency repairs. A rating of A-8 may be used by mine operators and their suppliers to obtain material required for emergency inventory purposes, for operating supplies, or for ordinary maintenance work. Gold placer mines are practically the only mines not covered by the new order, P-56, which, in so far as mines are concerned, revokes the provisions of Preference Rating Order P-22.

• **Cutting Chlorine Use**—Reduction of the use of chlorine in the manufacture of pulp and paper has been ordered in a directive issued by OPM's Materials Branch. The directive, effective Sept. 22, orders pulp and paper manufacturers to limit consumption of chlorine in bleaching rag stock (paper stock made from rags and clippings from textile mills) to 80% of the amount used in the first half of 1941, to 70% in making semi-bleached grades.

• **Utility Repair Priorities**—A maintenance, repair, and supplies order affecting thousands of utilities throughout the country has been issued by Priorities Director Nelson. The order permits utilities covered by the plan and their suppliers to use an A-10 rating to facilitate deliveries of maintenance and repair materials and operating supplies vitally needed for defense and essential public services. Utilities qualifying under the new order are those supplying electric power, natural or manufactured gas, water, or central steam heat directly or indirectly for general public use, as well as public sanitation services; manufacturers of public sanitation products are not, however, covered by the order.

• **Coke Ceilings**—Prices for by-product foundry coke and by-product furnace

coke, important elements of cost in making iron and steel products, have been frozen at approximately current levels by OPA Price Schedule No. 29, to go into effect Oct. 1. Pig iron, iron and steel scrap, and semi-finished and finished iron and steel products already are covered by ceilings, and the latest move is considered essential to continued stability of the iron and steel price structure. Only by-product foundry and furnace coke are covered by the present schedule, but Price Administrator Henderson has announced a readiness to place ceilings on beehive, domestic, and other coke if prices get out of line.

• **Ethyl Alcohol Maximums**—Maximum prices approximating the levels that have generally prevailed during the third quarter of the current year have been imposed on twelve leading classifications of ethyl alcohol by OPA Price Schedule No. 28. The top price of 24¢ a gallon "at works" is set for "Specially Denatured 2B"—the basic formula for the twelve classifications covered—in tank or car lots in eastern territory. The addition of 4¢ a gallon is permitted in computing prices in Pacific territory. Ceiling prices apply only to transactions in quantities of 500 gallons or more.

• **P. S.**—Acting to stabilize what he described as a "seriously disturbed price situation," Price Administrator Henderson has fixed maximum prices for all grades of wastepaper sold east of the Rocky Mountains. The maximums, set forth in Price Schedule No. 30, become effective Oct. 1, and are roughly the same as prices prevailing on June 16, 1941. . . . Ceiling prices that will be automatically adjusted to the market price of "spot" raw cotton will be established for the types of cotton grey goods now covered by Price Schedule 11 under a new OPA formula. . . . Contracts entered into prior to Aug. 19, the effective date of the copper scrap schedule, calling for delivery of scrap acquired at prices in excess of the maximums, may be completed at higher than ceiling prices without awaiting receipt of formal permission from OPA. Sellers, however, must make applications for formal permission, and, should it finally be denied, must refund to the buyer any amounts received over and above the maximum price for the type of scrap involved. . . . Permission to liquidate futures contracts has been granted by OPA to persons who established their long or short positions prior to Aug. 14, the date on which OPA's raw-sugar price schedule became effective. The action gives holders of futures contracts who established their position before the effective date of the schedule the same opportunity to deliver or take sugar at prices above the ceiling price that was extended to persons who entered forward delivery contracts for actual sugar prior to the effective date of the schedule.

Stopping Bullets

Armor plate—long in use—assumes a new rôle in modern warfare protecting airplanes, tanks, and warships.

For thousands of years people have crouched behind metal plate to keep from being speared or shot by other people. More recently they have been taking cover behind steel armor.

In today's wars, a score or more of armor applications protect life and the vitals of fighting machinery. You find plate on airplanes, war ships; on self-propelled artillery; on gasoline supply tanks; on personnel cars, trucks, scout cars. And, of course, armor is a specialty with the new armored divisions that ride and fight aboard their weapons—tanks. Many kinds of guns carry steel shields to protect the operators. Production of this armor plate is a prime responsibility of the steel and metal-working plants.

• **Who's Participating**—Just what plants produce what armor plate is confidential information, but a fair notion of the companies concerned with the problem can be had from a list, published by the Army Ordnance Assn., of the firms that are members of ordnance research ad-

visory committees. These companies and the armament committees on which they are represented are as follows:

Committees:

- 1—For cast armor
- 2—For rolled armor
- 3—For welding of armor
- 4—For aircraft armor
- 5—For body armor and helmet steel

Companies:

- Aluminum Co. of America, 4-5
 Allegheny Ludlum Steel Corp., 2-4
 American Car & Foundry Co., 2-3-4
 American Rolling Mill Co., 4-5
 American Steel Foundries, 1-4
 E. C. Atkins & Co., 4
 Baldwin Locomotive Works, 3
 Breeze Corps., Inc., 4
 Carnegie-Illinois Steel Corp., 2-3-4-5
 Continental Roll & Steel Foundry Co., 1
 Diebold Safe & Lock Co., 2-3-4
 Henry Disston & Sons, Inc., 2-3-4
 Eastern Rolling Mill Co., 4
 General Steel Castings Corp., 1
 Great Lakes Steel Corp., 4-5
 Ingersoll Steel & Disc Division (Borg-Warner Corp.), 4-5
 Jessop Steel Co., 4-5
 Lebanon Steel Foundry, 1
 McCord Radiator & Mfg. Co., 5
 Reading Hardware Corp., 4
 Republic Steel Corp., 2-3
 Simonds Saw & Steel Co., 4-5
 Siver Steel Castings Co., 1
 A. O. Smith Corp., 3
 Symington-Gould Corp., 1
 Union Steel Castings Div. of Blaw-Knox Co., 1
 Van Dorn Iron Works Co., 4
 Wehr Steel Co., 1
 Youngstown Sheet & Tube Co., 4-5

• **Airplane Armor**—The latest applica-

HOW HOUSEHOLD FINANCE HAS REDUCED RATES ON PERSONAL LOANS

CHARGES on small loans often seem high to the business man accustomed to borrowing large sums at commercial banking rates. But when he looks into the matter, he finds that the cost of making and collecting many loans for small amounts is far greater than the cost of making and collecting a few loans for large amounts.

Lawmakers know this. They have studied the costs of operating a small loan business. For this reason state laws authorize a maximum rate of charge high enough to bring legitimate capital into the business in order that legitimate loans at reasonable rates will be available to those who need them.

Household's rates below lawful maximum

Some lenders, in order to keep their businesses solvent, are obliged to make the maximum charge. Other companies, more efficiently operated or favored by local conditions, can provide small loan service at somewhat lower rates.

Household's policy has long been to lend at the lowest rates of charge consistent with sound business practice and a reasonable return on employed capital. Today the company's rates are lower than the maximum rates permitted by 20 of the 23 states where it operates.

\$4,600,000 saving to borrowers

For the last seven years Household's average monthly rate has shown a steady decline from 2.95% at the end of 1933 to 2.27% at the end of 1940. This average monthly rate of 2.27% compares with 2.75% maximum average monthly rate currently permitted by state laws. During 1941 Household's rates, in comparison with the maximum lawful rates, will result in a saving to customers of more than \$4,600,000.

The table below shows some typical loan plans. The borrower may choose the schedule which best fits his own situation. Payments shown include charges at the rate of 2 1/4% per month. Charges are less in many territories on the larger loans.

WHAT BORROWER GETS					
	WHAT BORROWER REPAYS MONTHLY				
	2 payments	6 payments	12 payments	15 payments	18 payments
\$ 20	\$ 10.38	\$ 3.63	\$ 1.95		
50	25.94	9.08	4.87		
100	51.88	18.15	9.75	\$ 8.08	\$ 6.97
150	77.82	27.23	14.62	12.11	10.45
200	103.77	36.31	19.50	16.15	13.93
250	129.71	45.39	24.37	20.19	17.42
300	155.65	54.46	29.25	24.23	20.90

Above payments include charges of 2 1/4% per month and based on prompt payment are in effect in seven states. Due to local conditions, rates elsewhere vary slightly.

Wage workers may borrow at Household Finance largely on character and earning ability. No endorser is needed. No wage assignment is taken. The loan is made in a simple, private transaction.

We will gladly send you more information about Household Finance service without obligation. Please use the coupon.

HOUSEHOLD FINANCE

Corporation
 ESTABLISHED 1878

Headquarters: 919 N. Michigan Ave., Chicago
 One of America's leading family finance organizations, with 300 branches in 198 cities

HOUSEHOLD FINANCE CORPORATION, Dept. BW 9a
 919 N. Michigan Ave., Chicago, Ill.

Please tell me more about your loan service for wage earners—without obligation.

Name.....
 Address.....
 City..... State.....



WHAT'S COOKING

W. E. Brewster, assistant superintendent of the Wisconsin Steel Works of the International Harvester Co., and George E. Rose, I.H.C. vice-president, took a cautious look into the new 150-ton furnace at the Wisconsin Works last week just before it poured its first heat, 45 days ahead of

schedule. First addition to the steel-making capacity of the Chicago district since the advent of the defense program, the new furnace, with a twin now nearing completion, will boost the I.H.C. plant's capacity by 160,000 tons a year, or 23%. Both furnaces burn a preheated mixture of blast-furnace and coke-oven gases supplied from within the plant.

"BONUS" LISTENERS—AND BUYERS

the 8,894,000 people who tuned-in the average of all 40 CBS programs only "occasionally"

What of the people who listen to a program less often than once a month? Does Radio sell goods to them too? If so, how effectively?

We haven't counted these people in the sales-impact measurements of this report. Not because they aren't important but because, for reasons already explained, one month was chosen as a conservative unit of audience measurement.

But Roper's figures also include full data on the less-than-once-a-month listeners. Let's check back—let's find out, if we can, how they "heft up," first as an audience, then as buyers.

At once we find the audience of "occasional" listeners—the less-than-once-a-month listeners—is a sizeable group. It is approximately as large as the entire group of once-and-twice a month listeners. Putting it another way, it bulks one-third as large as the monthly audience upon which all the preceding data in this report are based. It represents 8,894,000 listeners to the average CBS program!

These listeners are an "extra" audience—an audience which we have thus far ignored in this report. But they exist. They listen to radio programs—yours included.

They are "bonus listeners." Are they also "bonus buyers?"

Is this audience of "occasional" listeners reached by radio "often enough to sell goods?"

Roper's figures answer that question too.

You have the answer in the simple chart below. It shows a 31% increase in users of all products advertised on 40 programs—even



Page 25 from "ROPER COUNTS CUSTOMERS"

A STUDY OF CONSUMER RESPONSE TO 40 CBS SPONSORED PROGRAMS

Based on Personal Interviews from coast to coast, conducted by Elmo Roper, Jr.

- 7 METROPOLITAN MARKETS OF OVER 1,000,000
- 14 CITIES OF 250,000 TO 1,000,000
- 20 CITIES OF 25,000 TO 250,000
- 22 CITIES AND TOWNS UNDER 25,000
- 40 RURAL COMMUNITIES FROM COAST TO COAST

Copies of "Roper Counts Customers" are now available to sales and advertising executives upon request. (No miscellaneous distribution of the book is being made.)

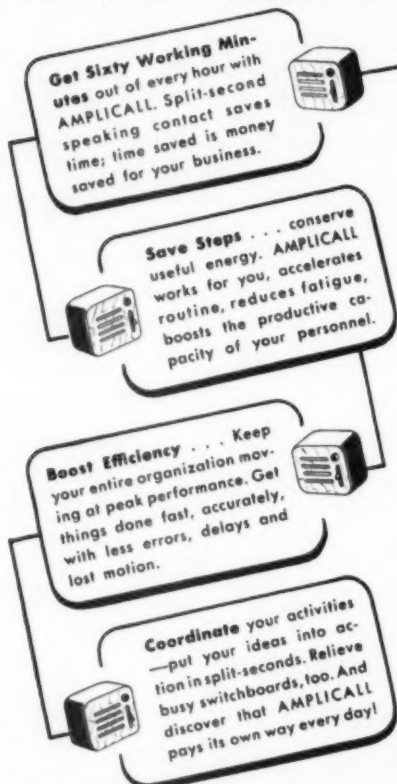
One of the findings from this study is shown at the left (page 25 of the printed report) and is important in itself. Even more challenging are the separate findings for each of forty programs covered in Roper's far-flung, scientific field work. For the study as a whole, phone or write to:

THE COLUMBIA BROADCASTING SYSTEM • NEW YORK CITY



THIS MODERN "SPLIT-SECOND" COMMUNICATION SYSTEM SPEEDS UP YOUR BUSINESS!

Your business will save minutes and money with AMPLICALL—the basic efficiency tool that speeds up your office and plant routine. It's the modern, streamlined system of inter-communication that puts every department of your business in easy, instant talking reach of busy executives. Check these time-saving, money-saving advantages:



No matter what your business or communication needs may be, there is an AMPLICALL System for you. Return coupon below for full details.

WEBSTER-RAULAND

THE RAULAND CORP.
WEBSTER-CHICAGO SOUND DIVISION
3825 West Armitage Ave.
Chicago, Ill. Dept. 51

☐ Send us full information covering AMPLICALL Intercommunication Systems.

Name _____
Address _____
City _____ State _____

tion of armor plate is on aircraft. Experiments began during the World War when pilots sat on stove lids to avoid getting rifle bullets in the seat of their pants. Various ordnance offices worked on airplane armor at that time, but during the peace years little was done. In the present war, the Germans and the British have turned up with airplane armor.

All sorts of fire is aimed at airplanes—.30-caliber rifles; .30 and .50-caliber machine guns; 37-mm. and other anti-aircraft guns up to five inches, throwing both contact explosives and shrapnel.

A hit by any kind of explosive shell, even from a .50-caliber gun, from another plane, or from the ground, is likely to disable the ship and the crew, and there is no help for it. But armor stops most bullets up to .50 caliber and flying fragments of shell.

• **Field of Attack**—Attack from air-borne guns comes mostly from the rear hemisphere, between 15 degrees below to 45 degrees above level. Thus, the best protection is placed behind the pilot and vital plane parts such as tanks, electric and hydraulic gear, and controls. Anti-aircraft fire comes from below, but it accounts for a minor portion of casualties. Hardly any fire of any kind comes from the front, and very little from the sides.

There are two types of airplane armor, face-hardened and homogeneous. Face-hardened armor, as the name implies, is tough, and is hard on the exposed side. One of its advantages is that it does not throw chips or "buttons" when struck by a bullet, because it is soft on the inside. Homogeneous armor is consistently hard and compact throughout. Its disadvantage is that it does throw buttons; on the other hand, it can be formed in contours and heat treatment is simple, with less loss in production.

• **Protection by Design**—Armor plate is not a plane's only protection. Parts of the plane itself are placed and designed with protection in mind. For instance, the disks of the retracted wheels in certain types can be placed so as to fend bullets from gas tanks or other vitals. As a matter of fact, the whole machine may be designed with an eye to "tumbling" the bullets, which cuts down their impact.

Not all armor is metal. So-called bullet-proof glass, two inches thick, stops .30-caliber projectiles at normal impact, and three-inch glass stops .50s. It is the splintering and powdering of the glass that does the trick, in much the same way that a bag of sawdust does it in a shooting gallery.

Armor for tanks is the next-most-recent development in designing protection for the three major weapons that are armored—warships, tanks, and airplanes. Of the slow behemoths of the World War (three to five miles per hour) the Russian tanks had the thickest

armor; three inches was their maximum, used only at some points. French tanks had armor two inches thick; the United States, Britain, and Germany used armor just over one inch thick.

• **Compromise**—Naturally, the ideal armor would be so thick that it would resist all projectiles, but that would mean a sacrifice of speed and maneuverability, thereby destroying the tank's offensive power. Hence a compromise must be made. Just what that compromise is on light, medium, and heavy tanks remains a military secret, but it is known that three types of plate are used on tanks:

(1) Rolled face-hardened plate is most common at present. This type gives the greatest protection against bullets up to .50 caliber, but it is brittle and does not withstand well the shock of hits by larger projectiles. It is necessary to use face-hardened plate on light tanks, because it is the only thin stuff which will keep out the slugs of high-powered machine guns. It can be welded and formed without difficulty.

(2) Rolled homogeneous plate affords the best ballistic values against projectiles larger than machine-gun bullets. It absorbs the shock of cannon fire, and, of course, resists small arms fire.

(3) Cast armor, much discussed of late, is increasing in use. Up to now it has been made to give 90% of the ballistic value of rolled homogeneous plate. The important advantage in cast plate is that it can be formed in any of the shapes that offer oblique surfaces to projectiles. American Car & Foundry, after accepting contracts to produce light tanks, had to set up its own plant to produce cast plate.

• **Job for Welding**—Riveting of tanks is not entirely satisfactory; hits snap rivets and the heads, sometimes the shafts, ricochet disastrously. Hence, it is likely that welding will be extensively used. Ordnance authorities have been experimenting with welding since 1933.

The trend is toward thicker armor, but here the designer runs into diminishing returns because, as the added weight slows him down, he must add more engine, more space, until his light tank becomes a medium and his medium tank a heavy with loss of agility. It takes about 450 hp. to drive a 30-ton tank 30 m.p.h. The engines in all tanks are radial air-cooled airplane types, for lightness and freedom from water emergencies.

• **Light-Tank Gun**—Incidentally, the story recently circulated that the 37-mm. anti-tank gun has proved inadequate to its purpose is not true; the gun is deadly on light tanks, for which it was intended, but it does not always penetrate medium-tank armor. Ordnance officers point out, though, that penetration is not necessary. The shock of a flat-angle hit is so terrific that it often stuns the crew, which loses control of tank and



There's a staccato chatter in the city room. Reporters and rewrite men jam fresh sheets of paper in their typewriters...glance anxiously at the clock...another deadline coming up...

Presto! In the press room, huge cylinders start rolling out the news of history just made . . . of advances in national defense . . . another day's headlines. "Get 'em on the streets, boys!"

Those typewriters with their chattering keys were built by craftsmen . . . men whose skill of hand and eye are enhanced by Disston tools and steel . . . files, hack saw blades, circular saws, high speed and die steels.

And in the press room, nearly a dozen different Disston products also serve . . . from paper knives to perforator blades, from folder blades to stereotype saws.

Your newspaper owes a good deal to Disston tools and Disston Steel . . . but so does your butcher, your baker, and the makers of your clothes, watch, radio, automobile and the power that lights your home . . .

It's hard to imagine a business which isn't served by Disston. Perhaps, if you have a production problem, Disston engineers can serve you too. Write today to Henry Disston & Sons, Inc., Philadelphia, Pa., U.S.A.



guns. The Army Ordnance department is always between the devil and the sea in demonstrating weapons and defense to the press. If a projectile goes through a plate, the plate is no good, and if it doesn't the gun is damned. That's what started the 57-mm. story; the boys went away before the Army got around to showing what the gun could do.

Transport Advice

Peacetime taximen become wartime experts. Hertz makes Army survey. Arnstein helps speed Burma Road traffic.

Authorities on peacetime bus and truck operation are being called upon to solve war problems in widely-separated regions. John Hertz, founder of the Yellow Cab Co. and partner in Lehman Bros., New York bankers, is making a transport survey for the U. S. Army. He is giving special attention to the maintenance of motor vehicles, including the procurement and stocking of spare parts.

Daniel Arnstein, head of the Terminal System taxi fleet and an experienced truck operator, is fresh back from a job of experting on China's vital road from Burma. With him were Harold Davis, of the Consolidated Motor Line, Hartford, Conn., and Marco F. Hellman, of Lehman Bros.

Politely ignoring urgent Japanese invitations to liquidate himself, Chiang Kai-shek, China's generalissimo, already is applying recommendations of the U. S. trucking officials to increase his flow of war supplies along the Burma Road. The dollar-a-year trouble-shooters arrived in New York recently, having left with the generalissimo a report on operating improvements designed to boost the road's capacity by 500% to 600%. (Freight tonnage on the road is a military secret but the accepted Chungking figure is 30,000 tons a month.)

"I made the trip," said Mr. Arnstein, "at the request of Harry Hopkins, an old friend of mine. Our party went through severe Japanese air raids in Chungking. From there we drove over the Burma Road making a first-hand investigation. We then went to Rangoon, the Road's seaport, where we made our report. The road wasn't attacked while we were on it—but that was just our good luck. There were plenty of signs of previous blastings."

• **Job for U. S. Fliers**—Lacking pursuit planes and aviators, the Chinese have to take whatever the Japanese dish out. But Mr. Arnstein sees hope of a change. He met American aviators and learned that some 100 of these fliers, equipped with Curtiss pursuit planes shipped over under the lend-lease law, had been as-

signed to protect the Burma Road. They had been inactive, however, because lend-lease ammunition for the planes had not yet arrived.

Mr. Arnstein was enthusiastic about the road: "Somebody has said that it was clawed out of the mountain with Chinese finger nails and that's just about what happened. The road was built without machinery and largely by volunteer labor. It is all up and down, and there isn't an eighth of a mile that is straight.

"The 18-ft. width and the fact that bridges will only carry 10 tons gross weight limits the traffic to small trucks. I saw lots of Dodges and General Motors vehicles, especially Chevrolets. Some 2,500 trucks are using the road now but another 5,000 are being delivered under lend-lease—which was one reason something had to be done to improve operations."

• **Running Time**—He declares that the present running time on the road of 20 to 30 days can be cut to six days with the proper maintenance, dispatch and patrol system. As it is, two drivers are put in a heavily but improperly loaded truck and from the time they leave the terminal they are on their own.

A dispatch system was something of which the Chinese had never heard. Mr. Arnstein demonstrated how time is lost by starting trucks singly and at any time they happened to be loaded. He showed the benefits of starting fleets toward each other from control stations at 6 a.m., thereby obtaining the utmost driving in daylight, assuring the maximum stretches of free road, cutting passing time to a minimum.

At present each truck's pay load is reduced by the necessity of carrying enough gasoline for its trip. Ignorance on the part of maintenance men results in failure to grease trucks. That and lack of spare parts are reasons why 50% of the trucks are laid up at a time. Delays for customs examinations at the Burma line (sometimes costing a full 24 hours) have been eliminated by Gen. Chiang as one of the first reforms under the report.

• **Recommendations**—American recommendations provide for a terminal every 100 miles and a substation every 50 miles. These will have gasoline, spare parts, repair machinery, wrecking cars. A dispatching system will be established to control traffic and patrols will cover the entire road.

It won't be left to the Chinese to inaugurate these improvements. A force of 40 to 50 mechanics, dispatchers, loaders, maintenance men are now being recruited in this country. They will be in China within 30 days to train and supervise an extensive Chinese personnel. All will be under the supervision of James Wilson, a Terminal trucking executive, now on the job in China. Mr. Arnstein has no doubts as to the ability



Dollar-a-Year Man Daniel Arnstein (right), head of the Terminal taxi fleet—with one of his two dollar-a-year aides, Harold Davis (left), of the Consolidated Motor Line, Hartford, Conn.—is back in the United States after figuring out a way to boost traffic 500% to 600% on the vital Burma Road supplying Chungking.

of Chinese drivers or trained Chinese mechanics.

• **Fine Craftsmen**—"You couldn't expect the Chinese to know what it has taken us 30 years to learn about truck operation," he observes. "Chinese drivers handle their trucks well and as for their mechanics, the race produces magnificent craftsmen. I saw two half-naked Chinese workmen turning out machine screws in a field. One coolie at a crank furnished the power, another worked the lathe. They were proud of the fact that they had stepped up production from 20 screws a day to 30. We have machines that grind out 30,000 of those screws in an hour but they aren't any more accurate than the ones the Chinese were making by hand."

Mr. Arnstein is sure that such people will never submit to Japan. Lacking machines, they perform incredible war tasks with bone and muscle. He saw 75,000 of all ages building an airport with spades and baskets. The job of asphaltting the Burma Road, already started, will be finished with little benefit of machinery.

• **Two-Way Artery**—Finally, Mr. Arnstein reminds the U. S. that the Burma Road is a two-way artery. It takes in war supplies and brings out Chinese products that we badly need. First on the list is tung oil, used as a drier in paints and varnishes. With so much talk about handing out American dollars, the country has failed to note that the first \$25,000,000 loaned to China by the Export-Import Bank has been repaid, almost entirely by tung oil sent out over the Burma route.

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Vanishing Zipper

Engulfed by metal priorities, unable to use substitutes, slide-fastener industry pins its hope of life on Washington.

When the new fall fashions for women were introduced in the elegant salons of America's leading dressmakers a fortnight ago, the "highest" of high styles was a loose, zipperless, buttonless, beltless coat.

In that garment—sans all fasteners—trade observers saw not just a fashion whimsey but the shadow of a grim necessity. To the slide-fastener industry, waiting word from Washington which would save it from complete extinction, the portents were particularly glum.

• **Nothing to Spare**—In the 12 months preceding June 30, 1941, it is estimated that some 440,000,000 slide fasteners were produced in the U. S. To maintain output at this level, the industry would require metal in quantities amounting to .6% of U. S. copper production, .2% of U. S. zinc production, and 1% of U. S. nickel production. The metals situation has become so tight that even this infinitesimal quantity—or a fraction of it—may not be available.

Unlike other consumer-goods industries caught in the priorities pinch—automobiles, radios, refrigerators—the slide-fastener industry can't look to substitutes for relief. There just aren't any. The industry depends on two metal alloys. One, "nickel-silver," takes about 65% copper and 35% nickel and zinc. The other, "gilding metal," takes some 85% copper, the rest zinc. The estimated \$2,000,000 the industry has spent on research over the years has failed to turn up anything else that will fill the bill.

• **Why No Substitutes**—Stainless steel has been tried, and found too hard on delicate, precision cutting tools. Plastics, which have been used in purely ornamental "zippers," never accounting for more than a small fraction of 1% of total production, won't stand up under the wear and tear to which a utilitarian fastener is subjected.

To the score of zipper manufacturers in the trade, the tragedy of their position lies in the fact that their product is threatened with sudden death just as it finally has managed to get a firm foothold on a market. The slide fastener was invented back in the nineties, but it wasn't until the early twenties that production amounted to more than a trickle.

In the years between 1928 and 1932, the U. S. average annual consumption was less than 15,000,000 slide fasteners, including some imports, and as recently

as 1937, consumption was only 140,000,000 units. Particularly hard hit, because it has had most at stake in developing the market, is Talon, Inc. As the Hookless Fastener Co., Talon owned the original patents on slide fasteners, as they are known in the industry, or "zippers" as the public calls them. These expired in 1934 before they netted Talon any appreciable return. (Incidentally, the B. F. Goodrich Co., which gave the business its first real boost back in 1923 by placing a substantial order for slide fasteners to be used on galoshes, owns the trademark "Zipper.")

• **Second-Hand Sufferers**—The demise of slide fasteners, if it comes about, will cause unhappy repercussions in many industries now geared to use them. Leading sufferers will be women's wear (which probably takes more than half of total output), men's wear, luggage and leather-goods, children's wear and footwear (which account together for about 40% more). Already, these industries are feeling the pinch. Manufacturers of coats and suits, women's handbags, and countless other items have materials cut out and waiting for zippers, which may not be available.

Substitute closures are not readily available. Buttonholing machines are now almost unobtainable. Snap fasteners also use metal alloys which are scarce or unobtainable. Government wire orders have created a scarcity of hooks-and-eyes.

One unhappy member of the New York City garment trade lugubriously sized up the situation this way: "We can go back to string—if we can get it.

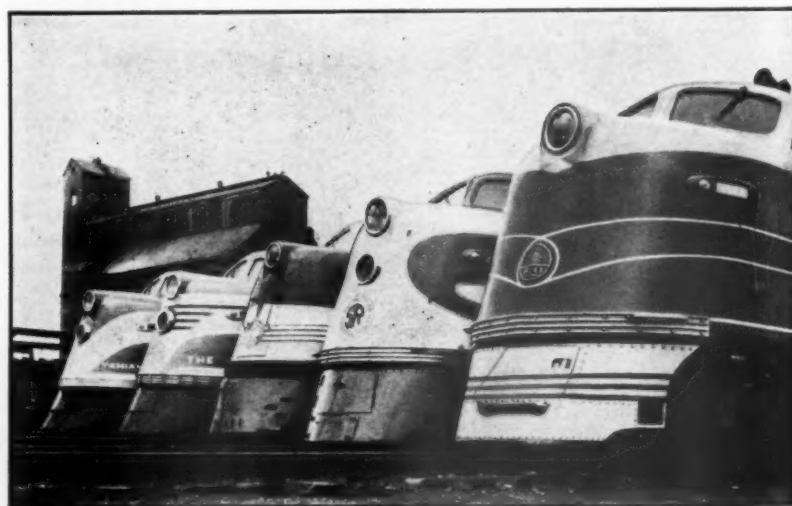
But to me it looks like 'Gaposis' on a national scale."

• **Metal Stocks Low**—It was not until early August that the slide-fastener industry awakened to its unhappy predicament. Since the industry works on a short production cycle, with a low inventory policy, it found itself facing the emergency with metal stocks on hand—copper, nickel, zinc—adequate for a relatively short period of normal production, a matter of weeks in many instances. By slowing down output, manufacturers are stretching this a bit.

Already, however, Talon has been forced to dismiss 800 of its 6,500 employees. Conmar Products Corp. (second largest company in the industry, with about 15% to 20% of the slide-fastener market) has laid off between 400 and 500 of its 1,700 workers. In the case of Talon, the layoff is particularly critical, for Meadville, Pa., where the company's headquarters and main plants are located, is virtually a one-industry town—one of the fifty priority-threatened cities on OPM's Labor Division's list (BW—Sep. 13 '41, p. 15).

• **Hope for Government Aid**—Conferences with OPACS in Washington in August gave slide-fastener men hope that the government would make an effort to insure them part of their normal metal requirements. Even if this metal is forthcoming there will now be a nasty slump before production can return even toward normal levels. It will take about 45 days to get delivery on the metal alloys from scratch.

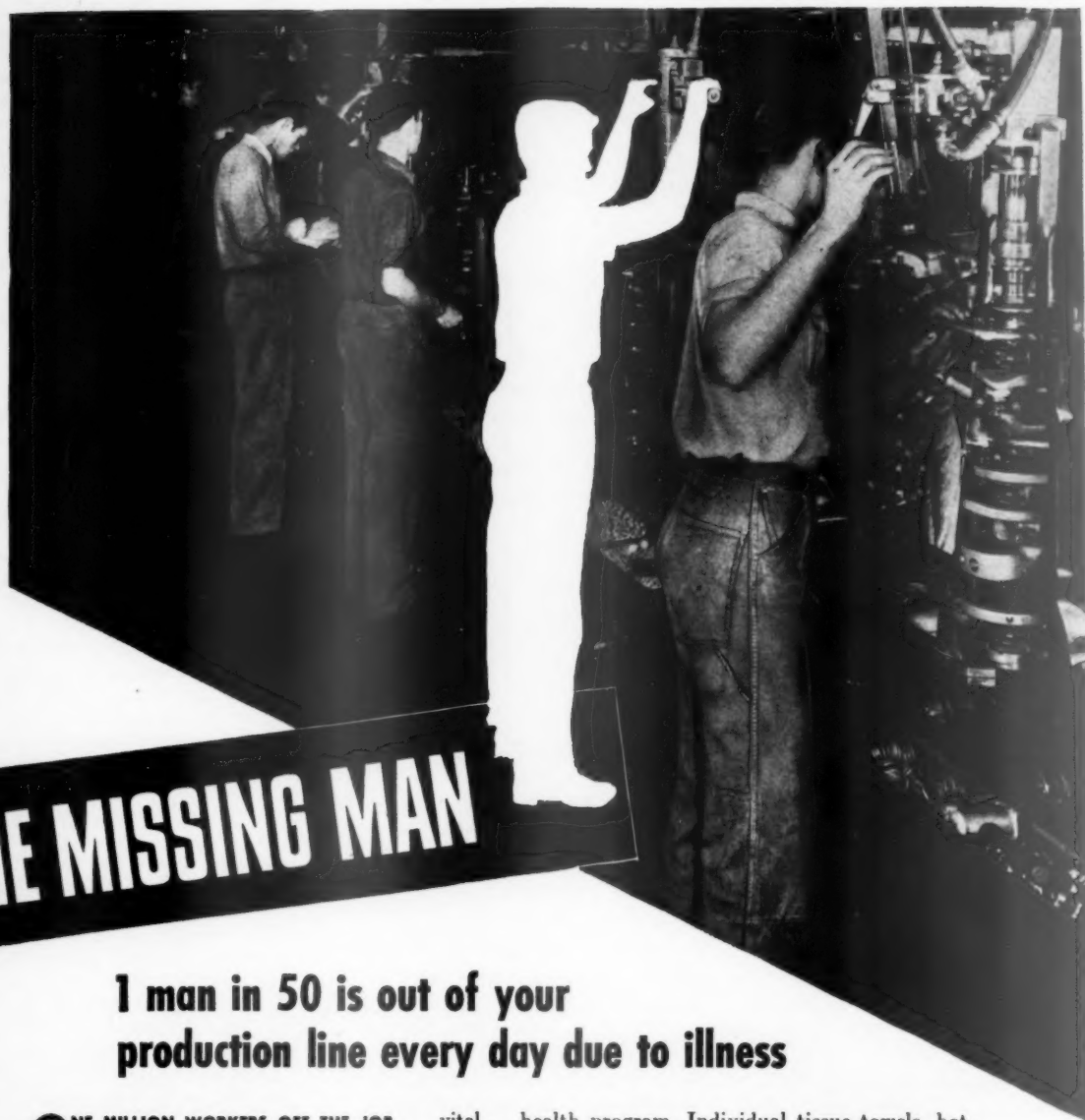
Slide-fastener men are wasting no time in idle tears. Already they are go-



FIVE IN A ROW

It's a rare picture that shows streamliners of five different railroads lined up side by side—but a photographer got it in the Washington, D. C., yards of the Washington Terminal Railroad Co. recently. From left to

right the diesel passenger locomotives belong to Florida East Coast Railroad, Atlantic Coast Line, Seaboard, Southern, Baltimore & Ohio. The photographer—G.M.'s Electro-Motive Corp., La Grange, Ill.—is unconcerned about the competitive angle of the picture because it built all five locomotives.



THE MISSING MAN

1 man in 50 is out of your production line every day due to illness

ONE MILLION WORKERS OFF THE JOB . . . vital defense work delayed . . . that's the toll of illness in American business, as indicated by a study published by the United States Public Health Service.

Fully *half* of this lost time is due to the common cold and its complications, it has been estimated.

92% of the firms where health programs were established reported reductions in absences in the Industrial Health Practice Survey of the National Association of Manufacturers. It was also noted that reductions in labor turnover and money savings resulted.

Personal cleanliness is a vital factor in any

health program. Individual tissue towels, hot water and soap can do much to reduce the spread of communicable illness.

1941 sales increases show that over 50% more workers now enjoy the health safeguard of "Soft-Tuff" ScotTissue Towels. When wet, these improved towels have 10 times more rub strength than the previous ScotTissue Towels. Yet they are soft as ever. One "Soft-Tuff" ScotTissue Towel can do a complete drying job, thus reducing costs.

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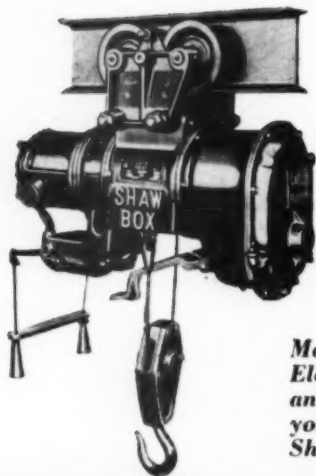
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ing aggressively after such meager defense orders as they are able to handle (defense orders for fasteners themselves—on Army field jackets, uniforms for parachute troops, sleeping bags, etc.—so far amount to between 3% and 4% of the industry's annual production). Talon, Inc. anticipates no difficulty in finding work for its tool room. For some months the company has been manufacturing gages, jigs, and fixtures for Frankford and Watervliet Arsenals and it is bidding on other small metal parts requirements which can be manufactured on certain of its automatic presses, with some retooling.

Canners in Clear

Specter of commandeering by government is dispelled by quick cooperation to meet Army's fruit requirements.

California canners, who by last week-end sealed the final tin of the 1941 fruit pack, were pausing this week to review a 90-day season as turbulent, probably, as the industry has ever known.

The reason was government buying. That this buying didn't take the form of commandeering, causing a loss to both canners and buyers, may be attributed to the horseshoe that usually hangs over the packer's warehouse door. • **Low Carryover**—Western canners traditionally date the season's operations from the national canners' convention that meets every January in Chicago. What buyers, brokers, canners, and equipment men say to each other then usually sets the tempo of the year quite accurately. Last January, Californians, fortified by a 10-year low carryover, approached Chicago with a firm tread.

Surprised buyers, who usually can almost state their own terms, reciprocated by placing larger-than-normal orders and thoughtfully refiguring their estimates in the belief that they might have to compete with the government for canned goods. By mid-June, when the first apricots hit California canners' weighing docks, probably well over half of the entire fruit pack for 1941 was more or less committed if not actually sold.

• **Enter the QMC**—Into this happy picture came a brief statement from Quartermaster Corps heads that canners would be expected to set aside sufficient stocks to take care of government needs (roughly from 5% to 8% of 1940 actual pack and in choice grade only). Canners largely ignored the situation, but buyers took note and turned in a record volume of actual and "memo" business in July.

Watching the storm clouds gathering and hearing the word "commandeer-

ing" mentioned quietly, California's potent and politically-wise Canners' League mailed three sharply-worded warnings to the industry (including non-members) advising canners to snap out of it and bid on government business.

• **Aloof in a Big Way**—Westerners, never overly fond of the paper work involved in government purchasing, remained aloof in a big way. The first call for bids by the QMC attracted only seven canners bidding on a total of about 15% of the required amount. Western canning heads are currently willing to admit that 30 days ago they fully expected authorities to step in and impound stocks.

Instead, "negotiated" purchases were satisfactorily substituted, a fact attributed to some quick cooperation by the QMC, canning industry, Canners' League, and others, including at least one large California bank. K. W. Hess, former executive of Safeway Stores, Inc., acting as "civilian consultant," did the liaison work between packers and QMC.

• **Priorities Rumor**—in the last six weeks, all government-required fruit except peaches has been secured. A rumor that packers who didn't provide canned goods to the government this year might have a tough time getting machinery priorities next year went the rounds while negotiations were in progress.

Despite government buying there will be about one-third more California canned fruits (estimated 1941 pack: 24,500,000 cases) for civilian use this year than last, Canners' League insists.

On U.S. Wine List

French firm opens plant at Alladin, Pa., to produce Grand Marnier liqueur. Mumm to market Argentine champagne.

Efforts to replace the fine wines and liqueurs formerly imported from Europe are not confined to California wineries (BW—Sept.13'41,p56). Producers and distributors of blue-ribbon French potables now are developing new sources of supply on this side of the Atlantic.

Early next month, American connoisseurs will get their first taste of Grand Marnier liqueur, produced at Alladin, Pa. About the same time, G. H. Mumm, Société Vinicole de Champagne Successors & Associates, Inc., should receive its first shipment of quality Argentine champagne for distribution in the U.S. Other distributors have been marketing Argentine champagnes for some time (BW—Dec.14'40, p64).

• **"Made in U.S.A."**—Up to a short time ago, Grand Marnier (an orange-flavored cordial with a brandy base) was made only in France. Anxious to keep

TOUGH JOBS CAN'T STUMP



the new R & M MOYNO PUMP

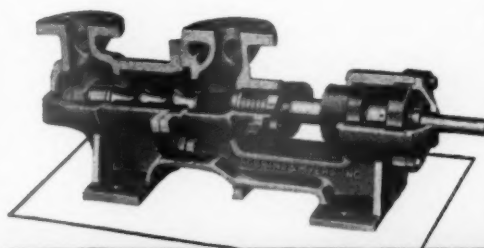
ONE of America's largest pure rosin suppliers faced a tough problem. Molten rosin had to be pumped from pans under high vacuum conditions. Plant engineers were baffled until one of them investigated the R & M Moyno. It provided the quick, efficient answer... is speeding the firm's production, saving money daily.

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We and these GM dealers were building a future—a new business based upon a new product.

It was and is a pioneering job, still far from finished, which has had its headaches along with its rewards.

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What is that story? One typical GM dealer among our 18,000 puts it this way:

A man's car around here is not a luxury, it's a necessity. It's his livelihood—going to work, coming home. He counts on it—counts on us.

Suppose a man's car doesn't work. We've got to know why, whether it's one of ours or one we didn't sell. So our boys go to the regular mechanics' school and study on the side.

When these cars are turned in, we know them. We've taken care of them. Their whole life histories may be written in our service department record. The owner buys a new car; we go over the old one and resell it as a used car. To the person who buys it, why, it's as important to him as the new one is to its owner.

"Up here, it's not just the looks of a car that's important, or even the way it rides. It's the dealer's word, his assurance that the car he sells will take the buyer where he wants to go."

We think that's a pretty sound preachment on public service. Don't you? It reflects an attitude which makes General Motors dealers partners in progress with us, and with the communities in which they live.



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MOVING EXPERTS

Object lesson in efficient moving is furnished by the Home Owners Loan Corp.—with a personnel of about 1,000. On Tuesday, Sept. 16, it began to clear out of its Washington headquarters (D. C. Hair, director of pur-

chase and supply—right, above—supervised packing of the files). The shipping of equipment, by van and railroad car, so that it arrived in a continuous flow, made it possible for the corporation to start work in its new headquarters at New York City on Monday, Sept. 22.

the market for the liqueur open in the U. S., South America, and other parts of the world which no longer receive French imports. Marnier-Lapostolle, Inc., bought the old Joseph E. Finch plant at Alladin, brought technicians over from Bordeaux to supervise installations, and is now making Grand Marnier under the same standards by which it has been produced in France for 130 years.

Significantly, Marnier-Lapostolle does not regard the shift to Alladin as a pinch-hit move. It plans to continue production even after it again becomes possible to receive shipments from France. The Alladin plant (which has a capacity of 500 cases a day) is to supply all U. S., and possibly other markets. American consumers will benefit by the shift. Grand Marnier's price has been stabilized in this country at a level \$5.65 a fifth. With no import duties, the price will come down to \$3.89. Sales will be handled by Continental Imports, a division of R. C. Williams.

• **Raw Materials Assured**—Since Marnier-Lapostolle has extensive stocks of aged Portuguese brandy, it takes only 60 days to turn out a batch of the liqueur. That's why production got under way quickly at Alladin. Other important ingredients—chiefly orange peel and sugar from Haiti and Cuba—are now obtained here more easily than in France.

Mumm's new champagne will be

produced by the British-controlled Globo Distilleries of Argentina—the largest winery in the world. It will be marketed under a new label, Bidou, and will carry the name of Mumm, as distributor. Production is by techniques similar to those used in California wineries. The champagne is aged from six to eight months in vats, instead of for several years in bottles, as in France. Bidou will be marketed as a quality champagne, however, selling at a price midway between the best California champagnes and Mumm's own French product. In addition, Mumm is importing French-type and Italian-type vermouths, also manufactured at the giant Globo plant.

Replacing Tankers

New California pipeline is among several important measures being taken by West Coast firms to combat shortage threat.

Early next month, Shell Oil Co. will fire a test torpedo through its new, 85-mile, \$1,750,000 oil pipe line between Ventura, Calif., and Wilmington, southwest of Los Angeles, and one of the country's newest oil transportation arteries, which was constructed in

record time, will be ready to function.

The "go-devil," as the oil people call the torpedo, is inserted into pipe lines to scrape out the interior and to determine whether the line is clear. Ordered when Shell officials saw a tanker shortage looming, the line was begun Aug. 5 and was built at the rate of a mile and a half a day. It will deliver about 40,000 bbl. of oil daily.

• **Tanker Losses**—Shell's new line throws the spotlight on other West Coast moves to minimize the effect of the tanker shortage and make the most efficient use possible of present facilities. These moves include: (1) use of pipelines instead of tankers as much as possible, (2) interchange of company stocks in both marketing and refining operations, (3) shipping of oil to Oregon and Washington from San Francisco rather than from Los Angeles as at present, thus cutting down tanker mileage.

The Coast industry used to operate about 43 tankers. Three ran in inter-coastal trade, the rest to West Coast ports, Alaska, and Hawaii. Eleven units have gone to the British and three to Russia. Petroleum men figure that even after they've accomplished all possible savings and adjustments to make present Coast facilities more effective, they'll still be short a half-dozen tankers.

• **Combining Shipments**—To get all possible service out of available ships, the industry is considering: (1) cutting out unnecessary port calls; (2) interchanging supplies, which means that all companies with distribution facilities in a given port will share the load of a single tanker instead of having tankers of several firms stopping there.

Tide Water Associated plans to boost capacity of its pipe line into San Francisco from the San Joaquin Valley by something like 30,000 bbl. a day. Two other lines from the valley to Los Angeles, which have been operating at less than capacity, will be worked full blast.

PLYWOOD BOATS

Large-scale production of pre-fabricated plywood ships—from 45 ft. to 150 ft. long—"for possible Army and Navy use" was announced this week by the Speedwall Co., a subsidiary of I. F. Laucks, Inc., manufacturing chemists of Seattle, Wash. The company plans to build ten ways on the Chehalis River near Aberdeen, Wash., for assembly-line construction of the vessels.

Under the process to be used, curved planks for the sides of the boats will be formed by gluing strips of plywood—as long as the boat and up to 8 ft. wide—in a curved form. Thus, any reasonable thickness up to two or three inches can be formed to the proper curvature and attached to the ship's ribs. The company says the method will reduce calking to a minimum and the boats can be 75% built by unskilled labor.

PRODUCTION

Plant Camouflage

OCD pamphlet will soon focus attention of industry upon concealment techniques for air-raid protection.

The prospect of any large-scale bombing of American industrial plants remains remote, but the threat of even a small-scale "token bombing" is enough to quicken the pulses of manufacturers on the Eastern Seaboard. Many of them have bombarded various departments in Washington with letters asking for advice on protective measures. Next month, the Army, through the Office of Civilian Defense, expects to have for them up-to-the-minute answers in the form of a comprehensive pamphlet, running over 100 pages, now in preparation by the camouflage experts of the Engineer Board, at Fort Belvoir, Va.

Back of the pamphlet are countless hours of research and testing, innumerable trips to England for first-hand knowledge of the destructiveness of Axis bombs and the effectiveness of British protective measures, plus seemingly endless conferences with architects, engineers, air pilots, bombardiers, aerial photographers, landscapers, paint specialists, bomb victims, and any others who might be able to throw significant light on the subject. The English are the first to admit that they lost nearly two years and millions of dollars through inadequate camouflage knowledge. They are more than willing to give us the benefit of their experience.

• **New Technique**—Out of it all has come a new technique of camouflage and protection. The fundamentals are the same—concealment or confusion of identity or both combined—but, whereas the camoufleurs of the World War were called upon to protect buildings and artillery and troops against the keen eyes of many ground observers and very few airmen, they must now plan on outwitting many airmen equipped with aerial cameras so accurate that they spot day to day changes in all but the best camouflaged terrain.

Since practically all reconnaissance is now done photographically from the air, the modern camoufleur no longer dares to rely on visual inspection alone for the matching of a green paint with surrounding verdure; he must go aloft himself and photograph his work to be sure that he has both a visual and a photographic match. The visual matching is still vital because the bombardier continues to train his bombsight by

eye. To make the problem still more complicated, there are now infra-red films for the aerial photographer which get pictures with color values quite different from those captured on standard films.

• **No Job for Amateurs**—For these reasons, and many more, the forthcoming pamphlet is sure to say that amateur camouflage attempts are worse than none at all. In brief, it will recommend that the individuals most intimately concerned with the creative concept of a concealment plan, and those having final authority in accepting it, should first observe the site personally from the air. Then, fortified with maps, building plans, scale models, aerial photographs, etc. they can go to work on preliminary plans.

In simple cases, a suitable basic camouflage scheme may be evolved with only a few hours of study. For example, a scheme for a small factory on the fringes of a city might make the buildings look like farm buildings (confusion of identity) or screen them with nets over their sawtooth roofs and adjacent parking areas (concealment). A railroad spur might be camouflaged to look like the continuation of a city street. Another example might be the concealment of an out-of-town plant in a wooded area by means of splotches of paint on the roof to blend it inconspicuously with trees and shadows.

• **Must be Reviewed**—Whatever the basic camouflage scheme may be, the pamphlet will make it clear that it must be reviewed by appropriate civil or military authorities before any commitment is made to prepare detailed working drawings and material specifications or to put the scheme into execution. As yet, there has been no iron-clad decision on who the appropriate authorities will be. The choice seems to lie between the Office of Civilian Defense and the War Department's National Technological Civil Protection Committee. The question will undoubtedly be resolved before the pamphlet is issued.

Cooperating with the work of the Corps of Engineers in developing the new techniques of camouflage and protection are such professional societies as the American Institute of Architects, the American Society of Civil Engineers, and the National Society of Heating and Ventilating Engineers; trade groups like the National Paint, Varnish, and Lacquer Association; educational institutions like Art Institute of Buffalo (which gives a course on industrial camouflage); and various universities.

• **Stages of Concealment**—Whether OCD or NTCPC gets the nod, it is

But TAMPA'S SMOKE is Not All cigars

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Tampa is the distributing center for the world's largest phosphate production and for Florida's richest agricultural region. Railroad for Florida's West Coast; gateway to South America; excellent air, rail, bus, and truck transportation facilities, splendid deep-water harbor.

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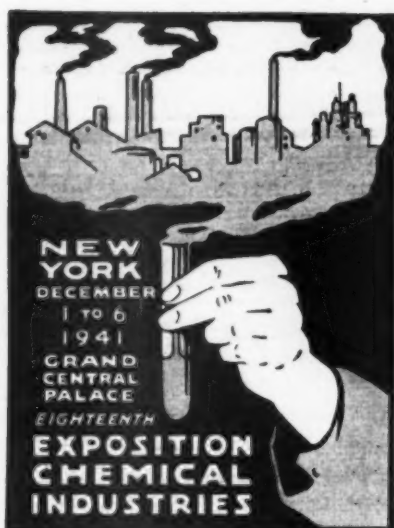
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This year's Exposition of Chemical Industries will occupy three complete floors of Grand Central Palace, New York. It will be the largest in years and, for sheer helpfulness and timeliness, the most important ever staged.

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18th EXPOSITION OF CHEMICAL INDUSTRIES
GRAND CENTRAL PALACE
NEW YORK, DEC. 1-6, 1941
 Managed by International Exposition Co.

DEDICATED TO SPEEDING UP AMERICA'S INDUSTRY
 FOR THE DEFENSE PROGRAM

going to be no easy matter for any authority to decide whether a given plant rates a "first stage concealment" job of suppressing bright colors (particularly aluminum paint which sticks out of a dark industrial background like a sore thumb) or a fourth-grade one which calls for total concealment. For total concealment, the patterns of the surrounding terrain are exhaustively duplicated, or the whole plant is built under ground.

Second-stage concealment involves the introduction of patterns designed to resemble the characteristic patterns of the region. In an urban locality, for example, buildings with extensive flat roofs might have imitation streets painted across them; in the country, roof patterns would be imposed to imitate surrounding wooded areas or cultivated ground.

• **Hiding Shadows**—Third stage camouflage may involve the introduction of false forms and screening to blot out existing outlines. Salvaged lumber, common chicken wire, cheap textiles, nets, wire guys, and paint may be combined in various ways to hide shadows (which are frequently more visible than the actual structure from the air) or to look like small buildings, trees, shrubbery, etc. Where there is a lot of natural growth, vines and shrubs may be used to great advantage in breaking angular outlines and "absorbing" shadows. Flat, hence reflective, surface textures can be roughened with crushed rock, gravel, sand, sawdust, and ordinary roofing granules, with colors introduced where desirable. In some instances, dummy construction will be recommended at a distance of a half mile or more from the plant to draw enemy bomb fire and at the same time to be far enough away from the real target to keep it out of the range of accidental hits.

It is obvious that any such elaborate camouflage job runs into real money, and hence federal authorities are not likely to recommend them except in the case of the most essential plants and in the event of a much greater urgency.

• **Concrete Roads**—Almost more important than camouflaging a plant is the concealment of concrete roads leading to it. Since, to the bombardier in the air, they stand out like "white arrows pointing directly to important objectives," Germany seeks to blot them out with a blue-black paint. England uses brown in the fall and winter, green in the spring and summer, and even adds colored crushed stone and other materials to cut down reflections when the most vital roads are wet.

England has also experimented with smoke screens and "counter illumination" for protecting vital industrial objectives, but smoke seems to be practicable only at night when the wind velocity is below 10 to 12 m.p.h., never during daylight. High-intensity search-

lights do not seem to confuse bombardiers, day or night.

• **Industrial Design**—Despite the fact that the present war has been going on for more than two years, there have been virtually no serious attempts at purely industrial camouflage in this country. What's more, large industrial architects and engineers like Austin Co. and Albert Kahn report a consistent lack of interest among their clients.

Austin believes the windowless building, which it pioneered, will be a natural for camouflaging. But Kahn submits that "the daylighted monitor type plant should prove no more difficult than the windowless. Provision is made in all our plants for black-out. We have adopted a very simple scheme—attaching to the stanchions between the sash steel clips to which will be bolted when the emergency arises 2x4's for nailing the corrugated iron sheets which are to cover the glass."

• **Basement Shelters**—That industrialists are not entirely indifferent to the dangers of bombing is attested by the fact that many of the new defense plants have installed locker rooms, lunch rooms, etc., in heavily reinforced concrete basements as shelters for personnel during air raids.

Austin reports that "vast underground tunnel systems of reinforced concrete have been built at several of our larger bomber plants to provide for the control of employee traffic between plant entrances and individual departments and for access to lavatories, toilets, and cloak rooms, underground, where they are out of the way of production but very accessible."

• **Tanks and Vaults**—As to bombproof industrial construction, there has been practically none beyond the burying of tanks for highly explosive solvents and the installation of some underground vaults for valuable papers, instruments, etc. Practically every defense plant has gone in for elaborate fencing, much of it equipped with high-power floodlighting, and some with electronic devices to warn of the approach of saboteurs and busybodies.

Some have been looking into painting stripes of fluorescent and phosphorescent paint on important aisles and exits, the former to glow under ultra-violet "black light" during the whole of a blackout, the latter to glow in the dark long enough to permit personnel to get out and get under. One big public utility is reported to have tried out "battle lights" during a simulated blackout, with the current for illumination cut down from 700 kilowatts per hour to 35. The lights were said to have been almost invisible through skylights and open windows, but unfortunately were not bright enough for other than routine power station work. Regular industrial production would probably have been impossible.

NEW PRODUCTS

Galv-Weld Process

When galvanized materials are joined by welding, the zinc coating is dissipated by heat and must be replaced if the joint is to be protected against rust and corrosion. Now being licensed by Galv-Weld, Inc., Mutual Home Bldg., Dayton, O., is the patented Galv-Weld Process which eliminates the need for hot-dipping. While the weld is still hot, a stick of zinc-bearing material is rubbed on. That's all.

Plasticcoils

Newest attachments for fluorescent lights are Plasticcoils for correcting color, removing glare, or achieving unusual



decorative effects. They are spring-like coils of transparent and translucent Eastman Tenite plastic which fit tightly over standard tubes. Schwab & Frank, Inc., Detroit, wind them in almost any color or combination of colors.

Brush Cleaner

Paint brushes are cleaned and dried in two minutes or less with the new Nashway Electric Paint Brush Cleaner. A special clamp holds the brush while a portable electric motor whirls it in a can of solvent. The maker, Nashway Mfg. Co., Lincoln, Neb., also provides two attachments for the cleaner: a drill chuck and a propeller-like paint mixer.

"Cardjacket"

File cards, catalog cards, and other more or less permanent records can be easily protected, strengthened, and made more legible by "Life Extension Cardjacket," a new transparent film produced by Seal, Inc., Shelton, Conn., and applied permanently by means of a miniature electric flatiron called the Kardwelder. Temporary checks or notations can be made on the film with colored wax pencils, and wiped off with a dry cloth when no longer needed.

Cool Work Lights

Workers in tight quarters, as inside the wing of an airplane, will get cool, shadow-free illumination from portable new Day-Ray Fluorescent Inspection and Work Lights. They consist of standard fluorescent tubes protected by transparent du Pont Lucite cases, 25 ft.



of rubber-covered cord, and a combination ballast and connector. They are made by Day-Ray Products, 912 Fair Oaks Ave., South Pasadena, Calif.

Hand Sander

The Speed-Wet Sander, new product of Behr-Manning Corp., Troy, N. Y., is a hand tool for dry or wet sanding with water, gasoline, or oil. It has an inbuilt magazine holding a reserve supply of abrasive paper or cloth.

Safety Scaffold

As a user moves up or down the new Fieroh Safety Elevator Scaffold, he carries the safety elevator, or work platform, with him by means of a shoulder strap. When the desired height is



reached, he locks the platform to a ladder rung and proceeds with his work protected by a guard rail. As manufactured by R. W. Fieroh, Inc., 3401 S. Hoyne Ave., Chicago, the whole outfit, rubber wheels and all, weighs only 195 lb. and folds into a 24x15-ft. space.

MATERIALS hard to get



Replace with Patapar!

Imagination . . . investigation . . . DISCOVERY! That's solving many a problem today growing out of shortages and rising prices.

Industries depending on materials of silk, rubber, aluminum foil, for example, are awakening to a new realization of what paper can do. Not ordinary paper — but Patapar Vegetable Parchment.

This remarkable paper has unique characteristics to set you thinking: It's strong when wet; grease-resisting; odorless; tasteless; boilproof. Moreover, it has a clear white sanitary surface that can be beautifully printed if desired. Countless fields are turning to Patapar . . . dairies, canneries, meat packers, candy and chewing gum makers, hospitals, manufacturers of machine parts and hundreds of others. In fact, we are constantly creating special papers for special purposes.

Does this give you an idea?

If so, write to us on your business letterhead. Outline your problem. We will then be in position to recommend the correct paper for your use.



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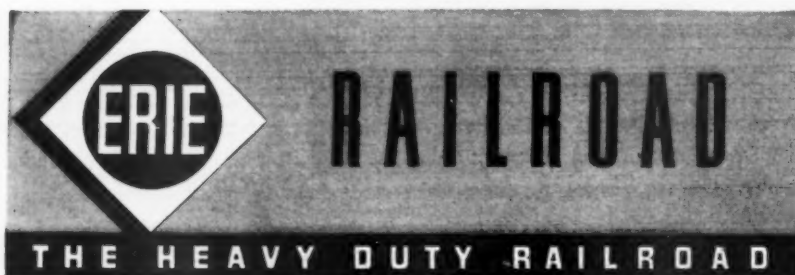
• Uncle Sam knows—soon *every* nation will have reason to know—that here is the world's greatest industrial empire. For out of its plants today pours the "hardware" of national defense in quantities staggering to the imagination.

Here raw materials are handy, here is power supply, here are skilled workmen. And here the Erie Railroad can distribute your product—quickly and economically—to 43,000,000 consumers, to thousands of manufacturers, wholesalers and retailers—all within easy access of its own tracks.

There's a strategic place for your business in this prosperous industrial empire, Mr. President. And Erie can help you find it! For up-to-the-minute facts on available properties, tax rates, labor supply, sources of material, markets, etc., just address Industrial Development Department

or

Carl Howe, Vice President, Erie Railroad
Cleveland, Ohio



MARKETING

Furniture Plaintiff

Dealers say sales drop is due to public misconception of instalment curbs. Favoring of upper incomes is charged.

As far as the 400 members of the National Retail Furniture Association who gathered last week in Atlantic City for an off-season convention are concerned, the trouble with the Federal Reserve Board's new restrictions on instalment credit is that they have worked too well (BW—Sep. 20 '41, p7). Furniture men say over-zealous Washington publicists have persuaded the public that it is now unpatriotic to buy on time.

August furniture sales (in specialty shops, not department stores and mail-order houses) were 27% ahead of the same month last year. September sales are barely keeping even with 1940, in some cases they are running 1% to 3% behind.

• **Blame Instalment Curbs**—Furniture men admit that the drop is partly attributable to the general leveling-off in all retail sales, after record-breaking panic buying in August (BW—Aug. 30 '41, p33), but they lay the major share of the blame on the public's misinterpretation of the instalment curbs. An attention-getting feature of the Atlantic City convention was a bulletin board displaying samples of the sort of "corrective" advertising stores have been using to counteract the slump. This special insert, run by Ludwig Baumann in the New York Daily News, is a typical example: "Now . . . As Always at Ludwig Baumann You May Use the Liberal 'LB' Credit Plan. Many false ideas and much unnecessary confusion have resulted from the wrong interpretation of Government Instalment Buying regulations. We're glad to take this opportunity to clear up the situation and give you the straight, simple facts."

Dealers from some 50 cities made plans at Atlantic City for cooperative campaigns along this same line. W. J. Cheyney of New York City, vice-president of the association, said that the correction of the public's mistake would cost "hundreds of thousands."

• **On Time**—60%—Certainly, if anyone has good reason to be concerned about the instalment curbs, it is the furniture trade. Between 55% and 60% of all furniture is bought on time. If charge-account purchases are included, the figure mounts to 80%. A store which goes after instalment business will do over 90% of its trade on time. Even

such quality "cash" stores as the W. & J. Sloan chain or the Paine Furniture Co. of Boston will do about 45% of their business on instalment terms, 20% to 30% charge, and the rest cash.

Furniture men argue that, even in the defense emergency, there should be some outlet for consumer purchasing power other than the basic necessities of food, shelter, and clothing.

Publicity-wise, the furniture trade's best argument for an overhauling of the instalment rules is that they work too much hardship on lower-income groups. Dealers say it's unjust for the \$5 minimum monthly payment to apply to a \$15, as well as to a \$50 purchase.

• Department Store Advantage—Owners of specialty shops—i.e., stores dealing exclusively in furniture and housewares—also feel that department stores, with their elaborate charge account and credit machinery, have an edge (which again favors the upper-income groups, chief users of charge accounts), particularly with regard to add-on purchases. If a family buys a dining-room suite (pronounced "suit" in the furniture business) from a furniture store and later decides to go back and tack on an extra buffet, there's a new time-payment contract to be drawn up and another 10% down payment involved. A department store can just suggest that the family buy its furniture or part of it on a regular charge account—and take as long as it likes to pay.

The trade also argues that the pres-



STAMP SALES

Last week was "Retailers for Defense Week," and 300,000 stores added their efforts to those exerted by the post offices in pushing the sale of defense savings stamps, now standing at a four-month total of \$14,019,000. Retailers have a special interest in making the voluntary plan click; it will stave off compulsory savings plans that would cut deeper into sales.

For Brand Defense on the Food Front - -



Food has a new dimension: *buoyant health*.

And food has a new-found champion: Uncle Sam.

Put this team together and you have a crusade for better nutrition unique in history... a mass-education movement that has already begun to electrify foodmen and food processing everywhere.

For adequate defense of their brands on this swiftly-changing food front, many processors are re-assaying food's hidden values, calling up vitamin-concentrate reinforcements to supplement Nature, or to put back the natural nourishment virtues that processing often takes away.

Whether or not the foods you market have yet come into the classes recommended for "revitalization," it will serve your interest to investigate the vitamin market for concentrates that offer maximum advantages, at rational cost.

That's where we can help. With oil-soluble vitamin concentrates—A and D—that can win your vote in almost any "third degree" of comparisons you care to make.

D.P.I.'s Vitamin A concentrate, for example, will prove itself incomparably stable and bland. This concentrate is unique among vitamin products: it is *Distilled Vitamin A in the Natural Ester Form**. Our process concentrates the natural oil protectives, the anti-oxidants, right along with the

vitamin in the complete natural ester form—the only concentrate of its kind. The resulting material is provably two to ten times less vulnerable to its Vitamin A destruction than any other concentrate or natural oil we have tested against it. This means genuine benefits to the user—and welcome economies in fortifying your products.

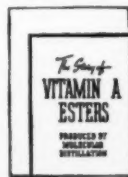
For Vitamin D users, D.P.I. offers ARPI Process Vitamin D, produced by electronic activation of ergosterol. Its ten points of superiority will interest you. Adaptable to a wide variety of uses.

So for adequate defense of your brands on the changing food front, come to "headquarters" for oil-soluble vitamins A and D. An experienced Service Laboratory is here to help you with technical advice, incorporation problems, etc. Write for literature.

* * *

If you are using or thinking about Vitamin A for foods, you should have a copy of "The Story of Vitamin A Esters." Not the usual promotion piece, but a factual, instructive description in non-technical terms of Distilled Vitamin A Esters, their unique processing story, and the facilities available here to serve you. Additional literature on ARPI Process Vitamin D and other D.P.I. products will be sent if requested. Please use business letterhead.

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Our advertising kit has three tools: business judgment, skill in our craft, and a painstaking habit best described in the maxim, "Not how much, but how well."

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ent curbs favor cash-lending agencies. Although these are required to abide by the regulations in making loans on furniture, dealers argue that there are leaks and a family that can't afford to make the minimum down payment (10% on furniture, 20% on most household appliances) will borrow from a loan office and sidetrack the dealer's regular financing machinery.

• **Used Furniture**—The present laws put no restrictions on instalment selling of used furniture. Members of the National Retail Furniture Association claim this works an injustice, since most second-hand dealers carry some new furniture and—since regulation here would be difficult, if not impossible—can get away with selling it on any terms they please. Therefore, the association favors the extension of the selling curbs to used furniture.

Like all industries, the furniture business is now plagued by shortages and priorities. Insiders claim, however, that the situation isn't as bad as has been represented. Metal furniture, of course, is out (most makers have managed to land defense orders of one kind or another); so are metal drawer-pulls and other small parts. There's also a severe stringency in burlap, used in upholstery and floor coverings (BW—Aug. 30'41, p26).

Furniture men thank their stars, how-

ever, that their three most important woods—walnut, gumwood, and maple—are available in the United States. Some manufacturers are worried about a shortage of mahogany—attributable, like the burlap pinch, to the tight shipping situation.

• **Enough for All**—There's been talk of putting mahogany on the ship-building priority list. The Navy uses large quantities, particularly in the construction of mosquito boats, which must be made of a very light, strong wood. Furniture makers say there should be enough mahogany for defense and furniture both. The Navy uses only smooth-grained parts of the logs; it rejects, as lacking in strength, the fancy-grained burls and knots which are the furniture industry's delight.

The sharp rise in wholesale prices, which put manufacturers in OPACS' doghouse early this summer (BW—Jul. 12'41, p14), are now reflected at retail as stores exhaust inventories bought at lower levels. The Sept. 1 Fairchild Retail Price Index showed furniture prices up almost 20% over the same date last year; the gain in the past month has been 3.3%. Manufacturers' prices, contrariwise, have been holding pretty steady in the past few weeks—the result of a somewhat oversold condition at the mills (retail inventories are up 13% to 16% over last year not counting unfilled orders) and, no doubt, strong "persuasion" from Washington.

• **Fear Design-Freezing**—Much discussion has been given over to the possibility of paring and simplifying furniture designs, in line with the federal government's standardization-simplification program. Manufacturers have voluntarily eliminated between 10% and 15% of their lines, and last spring the association informed them that retailers would accept any reasonable curtailment of design.

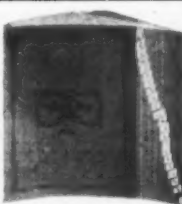
Stylewise, the furniture industry has progressed far in the past few years. Cheap, shoddy "borax" has almost disappeared. The depression brought the trade one blessing: good styling of inexpensive lines.

• **"Modern" Booms**—Currently, "modern," which enjoyed a brief eclipse a short time back because consumers shied off the extreme, uncomfortable shapes and designs in which it was originally introduced, is the most popular furniture style. The industry learned its lesson and a more gracious modern at present accounts for some 33% of all living-room furniture sales, 36% of dining-room sales, and 45% of bedroom sales.

There has been a big growth in the past five years of "ensemble selling"—the creation and promotion of a wide range of harmonizing pieces. This makes possible a well-correlated decoration scheme without confining the buyer to three- and four-piece suites.

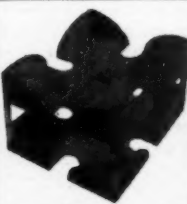
THESE USEFUL OFFICE ACCESSORIES HELP SPEED UP BUSINESS ROUTINE

There are many dependable Globe-Wernicke "business helps" needed in every office to increase efficiency ... keep office routine operating smoothly ... save time and money. Globe-Wernicke products are sold by leading stationers and office equipment dealers everywhere.



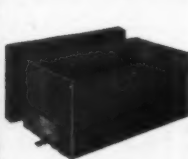
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Insulation . . . Walls . . . Windows . . . Doors**

**EQUIPMENT—Air Conditioning . . . Lighting . . .
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• We've asked hundreds of our readers—consultants, owners' staff engineers and contractors — what they wanted to know about engineered building products. Their answers amount to suggestions on how you can sell them.

Whether you're oversold or need orders now, we believe this survey can help you solve the problem of what to say in your advertising.

Advertisements that offer helpful information not only create good will but get results. As a consulting engineer phrased it, "Advertising should be as informative as the articles."

The articles in Engineering News-Record's annual building issue for October 23 will be especially good background for your advertising message. They'll be packed with helpful, how-to-do-it

information . . . all based on new design and building ideas developing in engineered defense construction.

This issue will put you in sales touch with nearly 33,000 regular paid subscribers and 60,000 pass-along readers . . . PLUS an extra bonus circulation of more than 3,000 at no extra cost—all important, hand-picked buying factors.

The coupon below will bring you two things: (1) more information on why this issue will benefit you; (2) suggestions from your customers and prospects on how you can use it most profitably. Clip and mail it today.

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330 W. 42nd St., New York, N. Y.

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☐ Please send reports of selling suggestions from engineers and contractors.

(Advertising pages for this issue close Oct. 16)

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THE QUARTERLY MARKET OUTLOOK—

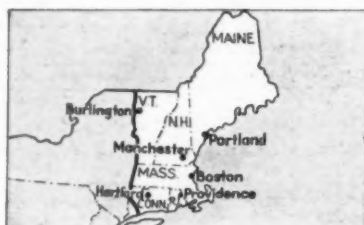
Because industrial expansion is limited both by plant capacity and supplies of critical defense materials, the income upsurge is due to slow down somewhat during the final quarter of the year. Advances in armament output, therefore, are likely to be gained—in part—at the expense of automobile and other durable consumer-goods lines.

Three regions, however, show great promise of income and retail sales increases. In the Philadelphia and San Francisco districts, for instance, defense production is accelerating, and potential priorities

dislocations add up to only a small sum of total business. And in the Kansas City region farm income is sharply on the rise.

On the other hand, some cities in such durable consumer-goods Reserve districts as Chicago and Cleveland will suffer at least temporarily over the next few months, as layoffs cut into buying power.

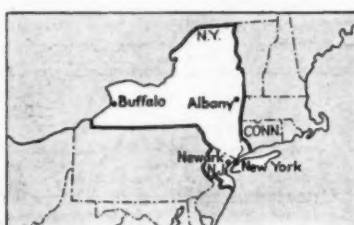
Even nondurable goods industries—cotton textiles, apparel, shoes, woollens, etc.—are up against machinery, supply, and labor bottlenecks, and production cannot readily advance at the rapid early-in-the-



62,573

8,018,906

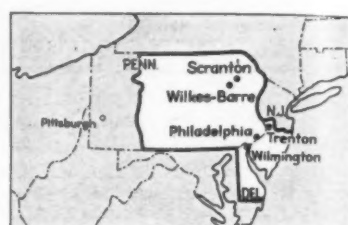
Since early 1940, New England income has risen faster than the nation's, but over the next few months a nearer-to-average rate of gain is to be expected. Though priorities will not hit this district hard, industrial operating schedules are close to capacity limits. Coastal shipbuilding points and armament and metal-working towns (mostly in Connecticut and western Massachusetts), will probably lead in within-district gains. Other sections—Rhode Island and eastern Massachusetts (consumer goods) and the northern states (agricultural)—will improve less markedly. Sales should rise most in factory centers.



52,153 sq. mi.

pop. 17,129,245

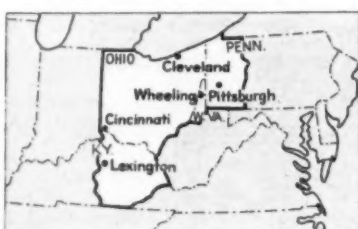
Despite advances in apparel activity, harbor traffic, and defense work, New York City prospects remain decidedly below average. One reason is that dividends, interest, and other property income—much more important here, proportionately, than in the nation—have been lagging in recent months (BW—Jul. 26 '41, p. 34, p. 56). However, in other parts of this Reserve district, marketing potentials are at par or above, especially in the defense areas—northern New Jersey, central New York state, Long Island, and southwest Connecticut. As a whole, this district won't be hard hit by durable consumer-goods curtailment.



37,023 sq. mi.

pop. 7,777,910

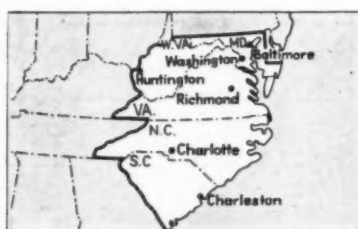
Rising employment in shipbuilding, aircraft, ordnance and other arms work assures this district of average or better-than-average income gains in the next quarter. The Philadelphia area (with its industrial suburbs) is especially promising, and towns like Allentown-Bethlehem, Harrisburg, York, and Wilmington also will be good markets. Aside from the pinch on hosiery and silk lines, industries here are not apt to suffer much from priorities or material shortages. Indeed, anthracite may benefit as a substitute for fuel oils, and Scranton and Wilkes-Barre sales may run less below the nation's than heretofore.



74,027 sq. mi.

pop. 11,809,528

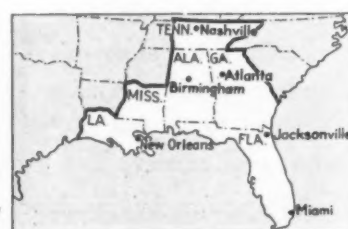
Until now, payrolls and sales in the western half of this Reserve district have outstripped gains in the eastern steel-coal portion. But curtailment of auto parts, tire, household appliance, and other consumers durable-goods production is apt to cut income sharply (though temporarily) in some of the western "priorities" cities and towns (BW—Sep. 13 '41, p. 54). The eastern half of the district, on the other hand, will be comparatively free from dislocations. Farm income—from livestock and dairy products—is advancing rapidly. Moreover, this is an arms district, and longer-term prospects rank high.



152,471 sq. mi.

pop. 12,330,219

The cotton and tobacco crops in the Carolinas are down sharply from last year, and though prices are up, income gains in farming areas here will be modest at best. Moreover, since cotton textile, hosiery, cigarette, and other industrial operations have approached capacity, advances in payrolls are also somewhat circumscribed. Defense activities, however, continue to dominate some sections of this Reserve district—Baltimore, Washington, Hampton Roads—and these centers offer greatest attraction to sales managers. All in all, district income and sales advances are apt to lag during the next few months.



247,778 sq. mi.

pop. 12,597,347

The curve of industrial operations—cotton textiles, lumbering, coal, and steel—is flattening out. But continuing industrial expansion in Tennessee and Alabama will boost retail sales in defense centers, and receipts from cotton marketings will lift buying power in many rural sections. On the whole, income will keep pace with the national average in the coming quarter. However, Louisiana and Florida trade has been lagging, and the below-average share of armament awards in most parts of the district suggests that income and sales gains may not be as pronounced as during the last year or two.

-A GUIDE TO REGIONAL SALES TRENDS

year rate. Hence, retail sales prospects in light-goods centers of such Reserve districts as Boston, New York, and Richmond rate somewhere between armament "hot spots" and towns hit by priorities.

The rise in farm prices has been a particular boon to agricultural districts. Where crops have been good—and they have been in most farming areas—income has been soaring. Indeed, the farmers' relative economic position has been improving sharply. In parts of such Reserve districts as Kansas City, St. Louis, Minneapolis, Atlanta, and Dallas, rural sales may be

as spectacular as those in some of the arms towns.

As in the past, however, differences within districts may be just as important as differences between districts. Thus, in the low-ranking Kansas City Reserve area, Wichita is outstanding because of airplanes; in the New York district, shipbuilding and armament centers far outstrip New York City. And the whole defense program, bringing as it does sudden windfalls to particular spots and areas, intensifies these differences in sales potentials, as the following district-by-district analysis indicates.



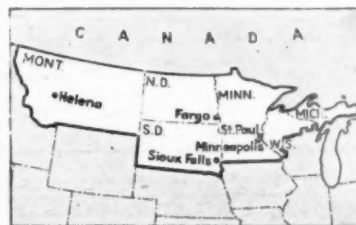
190,446 sq. mi. pop. 19,406,389

This Federal Reserve district, more than any other, will be affected by curtailment of passenger car and other durable consumer-goods production, and factory payrolls in a good many industrial centers, especially in Michigan, will fall off. However, as one of the nation's chief armament areas, sales are not likely to stay down long. Furthermore, hog, cattle, and dairy receipts will be advancing in the agricultural sections of Iowa, Illinois, Indiana, Michigan, and Wisconsin. All told, though the region's income index may falter temporarily, this will still be a market worth both extensive and intensive sales cultivation.



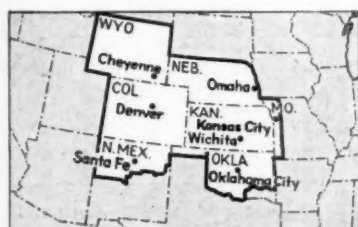
195,902 10,187,405

This district's income index is apt to depart from its usual course during the final quarter and outgain the national average. Cotton income in the southern half is going to be up sharply, because of the increase in the size of the crop as well as the sharp rise in price. Receipts in other farming sections—from tobacco, livestock, and dairy products—also will be higher. Moreover, defense payrolls in St. Louis, Louisville, and some of the southern areas, are beginning to mount up, and work will soon be starting on additional major armament contracts. Priorities dislocations are not apt to be a heavy influence.



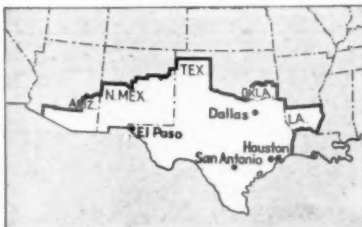
412,304 sq. mi. pop. 5,542,966

The current sales outlook—if not that for the longer-term—is bright in this widespread agricultural region. Crops have been good, dairy and livestock income is on the rise, and sales in some rural areas (especially spring-wheat North Dakota) will rival those in the nation's arms "hot spots." Twin Cities prospects have been lifted somewhat by awards for ordnance plants; Duluth-Superior shipbuilding is on the increase, and Iron Range towns are busy. But the district defense share is still well below the national average, and, generally, income and sales gains will lag behind industrial centers.



480,537 sq. mi. pop. 7,855,397

The income index of this Reserve district is the lowest for the country (page 62). But a better-than-national expansion is likely in the coming quarter. Returns from beef, milk, poultry, and other livestock—this farming region's chief products—are rising along with prices and output; and receipts from wheat marketings already have increased sharply. Barring bad weather, sales gains in many rural areas will be among the nation's best. Moreover many arms projects are contributing to payrolls and retail sales—especially in the Kansas City-Wichita-Tulsa area, but also at Omaha, Cheyenne, Denver and other points.



386,447 7,733,748

Despite heavy crop losses, cotton income is rising in the eastern half of the district, and in the western half, weather, pasturage, and livestock conditions continue excellent. So, this agricultural region is apt to maintain an about-average advance during the next quarter. A good many rural areas, in addition to defense plant and camp sites (BW—Jun. 28 '41, p. 31), can now be listed as sales "hot spots." Among the larger centers, San Antonio, Fort Worth, and El Paso are the current leaders. Incidentally, defense spending here is proportionately less than in the nation; this tempers the 1942 outlook.

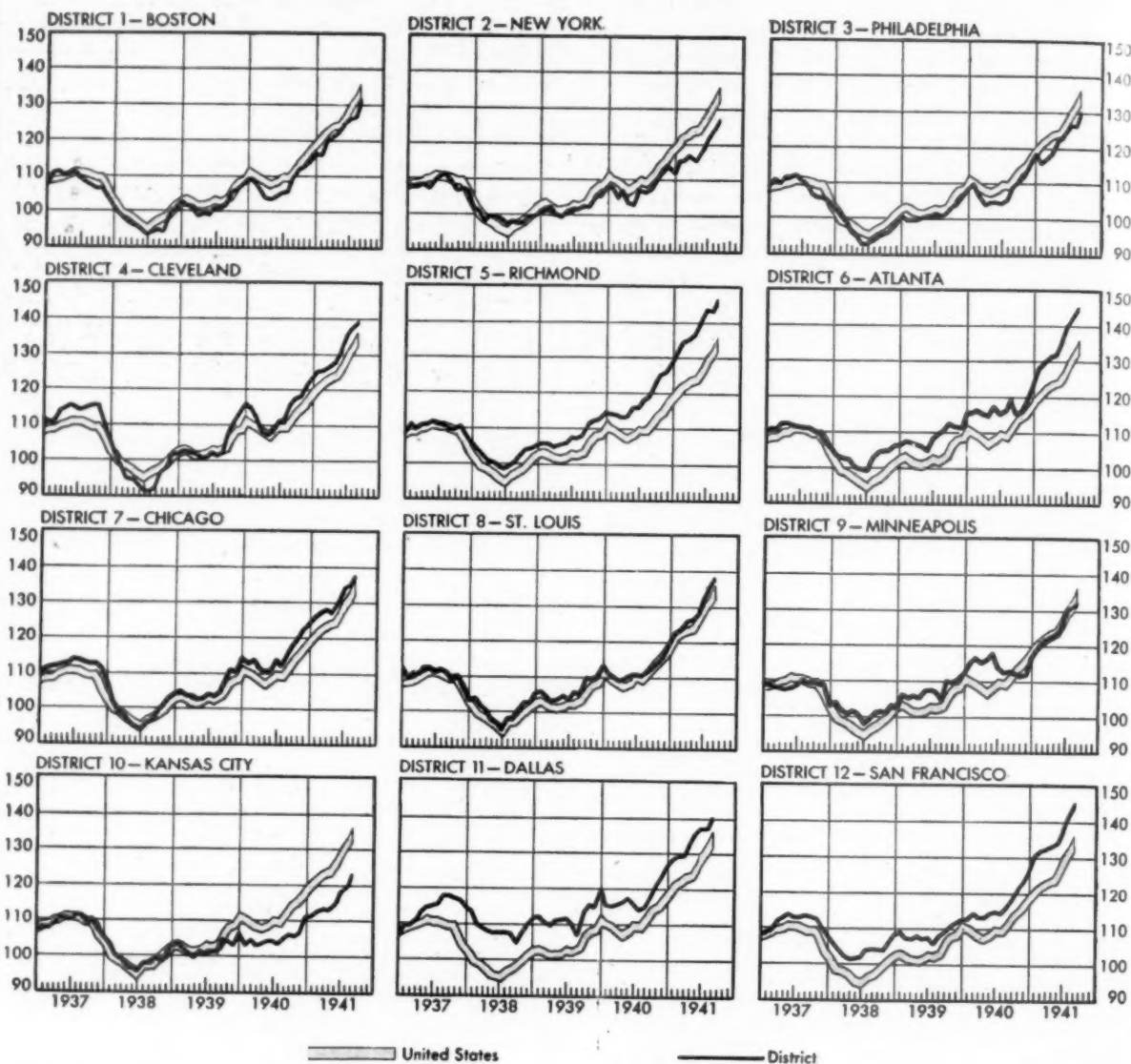


485,438 sq. mi. pop. 11,280,195

Income and sales prospects in this Reserve district place it among the nation's top three. Expansion of aircraft, naval and merchant shipbuilding, steel, aluminum, and magnesium capacity will provide a rising volume of new employment for many months to come. In addition, impending curtailment of consumer durable-goods lines will cause little dislocation among such major industries as lumbering, canning, motion pictures, mining, and petroleum. Demand for the district's chief farm products—livestock and dairy products, fruits and vegetables—is also expanding, thus lifting rural income and sales.

BUSINESS WEEK'S REGIONAL INCOME INDEXES

A month-by-month account of the trend of purchasing power in the country's 12 Federal Reserve Districts (1935-37=100, adjusted for seasonal)



THE FIGURES:

District	*August	†July	August, 1940
United States	136.1	133.1	112.6
District 1—Boston	132.0	127.3	109.2
District 2—New York	127.4	124.9	107.3
District 3—Philadelphia	130.1	126.4	109.7
District 4—Cleveland	139.8	137.2	115.2
District 5—Richmond	146.7	143.9	119.3
District 6—Atlanta	145.3	143.1	119.9

*Subject to revision.

†Revised.

District	*August	†July	August, 1940
United States	136.1	133.1	112.6
District 7—Chicago	137.9	134.4	115.0
District 8—St. Louis	138.2	135.2	111.9
District 9—Minneapolis	132.6	131.4	112.9
District 10—Kansas City	123.7	120.0	105.0
District 11—Dallas	140.6	137.3	114.8
District 12—San Francisco	145.6	143.1	116.3

All 12 Regional Income Indexes rose last month. And for the 12th successive month the national average advanced, reaching an all-time peak of 136.1, or 20.9% over August, 1940. Defense-helped regions have been outstanding leaders in gains over a year ago: San Fran-

cisco, up 25.2%; St. Louis, 23.5%; Richmond, 23%. Two farming districts, which so far have not been heavily burdened with armament contracts, have lagged—Minneapolis, up 17.4%, and Kansas City, up 17.8%. But both of these now seem headed for better gains (page 61).

New-Type Chain

C.M.O.'s experiment with catalog order units blossoms into full-fledged program. Economies of operation are cited.

The pattern for the retail chain projected by Chicago Mail Order Co. (BW-Jul.12'41,p48) began taking shape last week with the announcement of six new stores, leased or projected, to add to eight experimental units already functioning. C.M.O., a one-plant catalog operator with no outside outlets until a couple of years ago, now indicates that it is shooting for something distinctly different from anything in existence.

What is being developed is a chain of catalog order offices which undertake to supply a personalized service that picks up at approximately the point where other catalog houses' order offices leave off. The standard C.M.O. store is styled by W. L. Stensgaard & Associates, Inc., designers, and represents an investment of from \$2,000 to \$3,000 for a 20-ft. by 80-ft. unit, including fixtures, supplies and samples. There is a curving counter with stools and catalogs. There are a couple of mannequins in the window, and some upper-end merchandise samples in shadow boxes. Otherwise, the stock consists of swatch-books and panel-board displays of sample skins from fur coats, squares of linoleum, and the like. Garment samples are changed every few days; they make the rounds like a circulating library.

• **Personal Shopper Aspect**—Basic concept of the C.M.O. unit is to achieve a flavor of department-store personal shopper service—without the cost of carrying a local stock. To this end, the personnel is hand-picked. Typical procedure is to hire the best ready-to-wear saleswoman of ten years' experience available in the town where a unit is planned. She is taken to Chicago for a year's work in every department of the mail-order plant, with particular emphasis on the testing laboratories. Then she returns to her home town to run the order office which C.M.O. opens, and to train as her assistant another competent local ready-to-wear salesgirl.

With her acquaintanceship among local shoppers, she can really do a personal promotion job. Her assignment is to stand by in the store as helper and adviser to the catalog customers, supplying knowledge of styles, fabrics, ensemble harmonies, and the like. Incidentally, she can usually plug some timely items and boost the total order.

• **Case Study**—How it works is shown by the Chicago Heights unit, which opened a little more than two years ago with a nucleus of about \$2,500 of busi-

Because SANTA FE "DEALT IN FUTURES"



*The Little Man
Who's Always There!*

...YOUR SHIPPING POSITION IS MORE SECURE!

When Santa Fe pioneered the world's first mainline Diesel freight service, it was building toward a future of freight handling capacity in excess of normal demand.

Because of this kind of foresight, this "dealing in futures," your freight service via Santa Fe continues to be fast, punctual, dependable.

Even the stress of national emergency has not overburdened Santa Fe's maximum performance.

Santa Fe Continues to Offer:

- *Sixth morning* delivery at Pacific Coast points from Chicago.
- *Fifth morning* delivery at Pacific Coast points from St. Louis, Kansas City, St. Joseph, Atchison, and Leavenworth.
- *Third morning* delivery, Chicago to Galveston, Houston, and Beaumont. (Less carload and carload merchandise.)
- *Second morning* delivery, Chicago to Oklahoma City.
- *The only overnight* freight service, Chicago to Kansas City.
- *Free pickup* and delivery service on less carload merchandise.



Ship with confidence via Santa Fe. Call your nearest Santa Fe representative, or write

J. J. GROGAN

**GENERAL FREIGHT TRAFFIC MANAGER
CHICAGO, ILLINOIS**

Cincinnati TIME RECORDERS

For Every Time Requirement Since 1896

"clues"



One kind of "clue"—a note in a bottle—is a GAMBLE.

Trusting his message to the limitless expanse of the ocean as a "medium", the castaway is forced to rely on the vagaries of wind and tide for "readership"—with only a desperate hope that someone may see it.

Another kind of "clue"—an advertisement in the special "clues" (non-display) section of *Business Week*—goes straight to its mark... the 117,000 active men of management who subscribe to *Business Week*, plus extra pass-along readership that adds up to nearly a half million.

Recently, a keyed advertisement for a manufacturing executive was still receiving replies, two months after insertion—proof that they read *Business Week*, follow its "clues" to reach other business executives and, best of all—that they do reach them.

Cost (non-display "clues" section) 50 cents per word; minimum \$5. Copy received by October 14 will appear in the issue of October 18.



from the Original by Allen Houser, Grandson of Geronimo

Home from the wars...!

Live outfit...? Dead Injun...?

TODAY... Government approved Relays by Guardian can help you speed production, cut costs, prevent rejects, meet deliveries on that new Defense Contract. (*7,146 stock parts go a long way toward avoiding die charges.)

"Inventory Count Jan. 1, 1941

TOMORROW... may be too late to make improvements to meet fiercely competitive markets when the last gun sounds the end of defense demands.

RELAYS by GUARDIAN
LARGEST LINE OF RELAYS SERVING AMERICAN INDUSTRY

DESIGN NOW with defense needs and future markets in mind. Send to Guardian for new methods—circuits—controls and engineering suggestions.

FREE—Initial Your Letterhead for New Catalog. Write



Series 110
AC Relay

GUARDIAN ELECTRIC
1426 W. Lake Street Chicago, Illinois

ness and a couple of hundred catalog customers. In its second year, the store served more than 2,000 customers, and sales have grown more than proportionately. Total investment was a little more than \$2,000 to establish the unit. Total expense, including salaries of the two employees and telephone service from neighboring towns, is by the company's standards better than reasonably low for the resultant volume of plus business.

Even the actual store expense is subject to downward revision to compensate for savings that accrue at Chicago. The employees in the branch unit perform many preliminary clerical operations normally handled at the home office. All that the mail-order house has to do with a chain-unit order is to pick the goods off the shelves and ship them. The management expects even greater proportionate economies as the procedure is further refined.

• **Central Control**—The major advantage to the parent organization is the flexibility of operation and the reduction of inventory. All leases are one-year. The entire stock is carried at Chicago, subject to central control. Extremely rapid rate of turnover is certain. Losses and damage to stock are at a minimum, since all merchandise is in warehouse, wrapped and protected. If a store turns out to be a flop, 75% of the investment can be salvaged by shipping the fixtures and samples to a more promising town when the lease runs out.

Challenge to FDA

Court tests will show if loophole in law permits use of separately shipped circulars to get around label rules.

The drug industry is eying with much interest the efforts of a couple of its members to show the framers of the 1938 food and drug law left a big gap through which they can thumb their noses at the Food and Drug Administration and tell the public with impunity that their products are "good for what ails you."

These manufacturers, Nue-Ovo, Inc., Chicago, and Vitamin Products Co., Milwaukee, have adopted the technique of telling their stories in circulars which are not shipped with their products, but separately. No claims are made on labels but later both product and circular are found together in some retail stores. Food and Drug Administration contends this is misbranding, under a provision of the law governing interstate shipments.

• **Court View**—So far the manufacturers are one up on FDA. Federal Judge Lloyd L. Black, Tacoma, Wash., held

in the Nue-Ovo case, that the law doesn't support FDA's contention, though it might be desirable if it did. He remarked that legislation, however desirable, was for Congress and not the courts, and said that, anyhow, circulars are advertising, not labeling as FDA contends. FDA has appealed to the 9th Circuit Court of Appeals and the case probably will be argued this fall.

FDA also got an adverse decision in the Vitamin Products case in the U.S. District Court in Milwaukee. Royal Lee, head of the company, is one of the drug trade's rugged individualists. In 1938 he paid a fine of \$800 after being convicted by a jury of making false claims for "Catalyn," one of the products involved in the present case. Lee carried his case to the Supreme Court, but lost.

• **Vital to FDA**—FDA lawyers regard both cases involving circulars as vital and especially hope they can get Judge Black's decision overruled. If it stands, the separate-shipping technique is expected to come into fashion.

NEW BUSINESS

Vitamin Début

Lever Bros. took the wraps off its long-rumored vitamin-mineral product this week with the announcement that it is already selling in Providence, R. I., will spread out from there. Named Vimms, Lever's pills contain six vitamins—A, B₁, B₂, PP (nicotinic acid), C, and D—plus three minerals—calcium, phosphorus, and iron. Distribution will be only through drug stores, which is a triumph for druggists who have fought lustily to keep vitamins out of the hands of the food field. Vimms are the third new Lever product in the past year. First was Continental Soup (distributed through Lipton's), then came Swan soap, now Vimms. Like Swan, Vimms will be given a send-off with local newspaper and radio advertising.

Leasing Your Car

A new Willys every six months—with repairs, full liability insurance, and license plates included—is offered under a leasing arrangement worked out by automobile dealer Lawrence N. Cramer in Westchester County, N. Y. The lease takes care of all expense except gasoline and oil, costs the driver a little more than \$10 per week. The plan probably will appeal most to salesmen and doctors who are in the high annual mileage bracket and who can least afford "time out" for repairs. Precedent for the new transportation-merchandising method is the tire-rental plan under which taxicabs and trucks pay for mileage as used, turning in old tires for new ones.

LABOR

Sailors vs. U.S.

Union's fight is with Maritime Commission rather than shipowners and that complicates NDMB's problem.

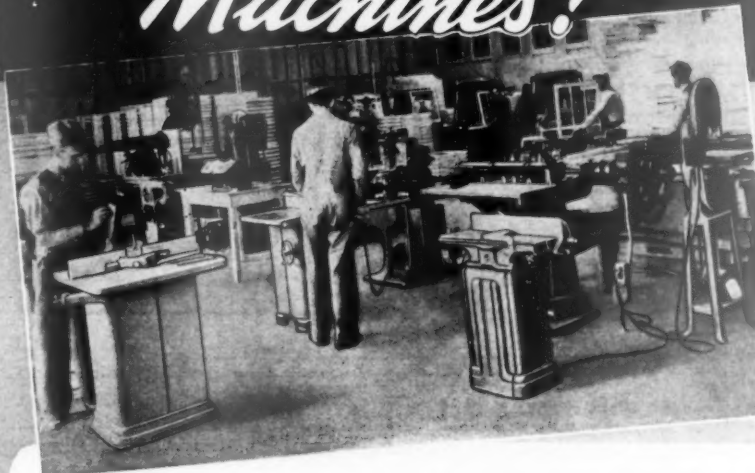
The firm hand which the government has manifested in the handling of labor disputes that interfere with defense or lease-lend policies since the days of the Vultee Aircraft strike was evident again this week in the swiftness with which the government moved to refer the ship strike to the National Defense Mediation Board without any preliminary efforts at conciliation and again in the President's press-conference statement that ship strikes would not be tolerated. With more than two dozen ships tied up at midweek and a 14-port walkout threatened, NDMB had to move fast; even though sailors returned to their boats pending a ruling, they wanted action. It was confronted, too, with about as knotty and delicate a problem as it has ever had to cope with, a problem complicated by the involvement of another federal agency, the Maritime Commission.

As predicted (BW—Jun. 21 '41, p8), the marine labor crisis arrived on the heels of the Axis announcement that American ships would be sunk on sight. It evoked an immediate demand for jacking up the war bonus rate of \$60 and the insurance payment of \$5,000. The government, through the Maritime Commission, acknowledged the need for rate adjustments and three-way conferences between the maritime unions, the shipowners, and the commission got under way. Licensed officers' unions accepted a commission plan for basing bonuses on an index of hull insurance rates. The sailors' organization, although not unwilling to discuss a similar flexible bonus plan, continued negotiations with individual shipowners for flat increases when it became apparent that there would be a delay in establishing an index for unlicensed personnel.

• **Commission's Position**—It was obvious that the commission did not favor the direct union-shipowner parleys. As an important ship operator itself, it was anxious to set up national standards on a sliding scale to which all the shipping companies would adhere. Further, it held that the union's attempt to include West Indian waters as a war-bonus zone was not justified.

While gathering data for the index delayed the commission's proposal, the sailors' union (A.F.L.'s Seafarers International Union) struck 14 ships a fort-

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worth of
'Old Fashioned'
Machines!"*



THIS progressive sash and door manufacturer replaced \$10,000 worth of obsolete machines with a complete battery of Delta low-cost high quality tools—and is now operating at lower costs and with increased output.

Many other metal and wood-working plants are now profitably using installations of Delta low-cost drill presses, circular saws, grinders, shapers, jointers, band saws, scroll saws and sanding machines.

There are good reasons for this widespread switch: Delta ma-

chines offer low-first cost—and unusually low operating costs. Some of the actual power bills we have seen on Delta tools would astonish you!

In addition, Delta machines are portable so they can be switched around easily to meet changing needs—and still are rugged, accurate and efficient. They are flexible enough to be adaptable for many special purpose set ups. Investigate now as to how you can increase your earnings with Delta low-cost machines.



Send for **FREE** Booklet "How to Increase Production" which tells you how the Delta idea can help you solve *your* problems. The Delta Manufacturing Company, 919 E. Vienna Avenue, Milwaukee, Wis.

DELTA MILWAUKEE

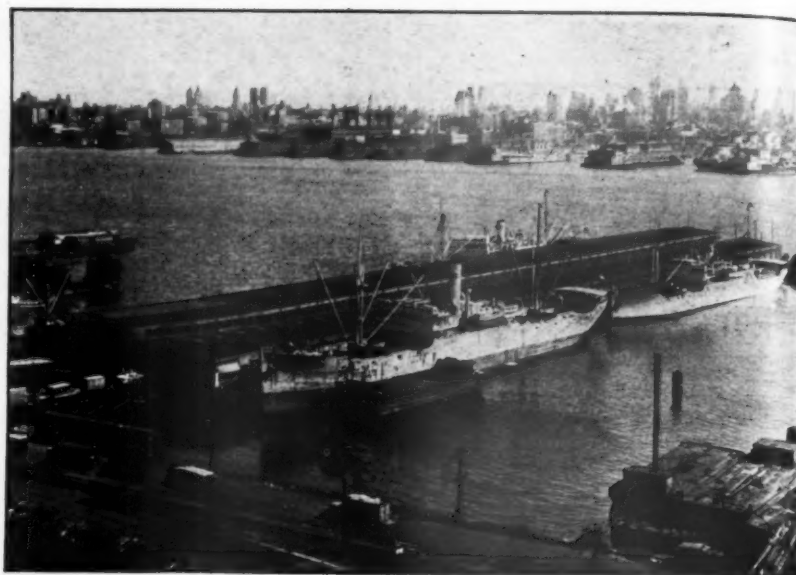
World's largest exclusive manufacturers of low-cost, high quality
drill presses • grinders • abrasive finishing machines • cut-off machines
• circular saws • band saws • scroll saws • lathes • jointers • shapers

night ago. The struck vessels were berthed in New York, Boston, Mobile, and New Orleans waters.

In a quick move to keep cargoes from piling up on wharves, the Maritime Commission "seized" three Alcoa Line ships last week. Through government-operated hiring halls, seamen were signed and two of the vessels sailed. But there was an obvious limit to the number of ships which the commission could man.

• **Strike Broadened**—From the point of view of the effect on shipping, this bold move may have been an error. There were signs that the union had intended only a "token strike." Feeling, however, that its existence was threatened by Maritime Commission action, and already convinced that the commission had been responsible for the turndown it got in direct negotiations with shipowners, S.I.U. broadened the strike to include other vessels as soon as they docked. In so doing, S.I.U. carried the strike to new Atlantic and Gulf Coast ports and, significantly, got the cooperation of the Sailors Union of the Pacific in tying up Alcoa ships in Tacoma and Los Angeles.

• **A Hot Potato**—Meanwhile, the Maritime Commission, holding a very hot potato, pleaded with the A.F.L. and the shipowners to find a solution. It volunteered to call a joint meeting and pressed work on its index plan.



Three Alcoa Line freighters, tied up at Weehawken, N. J., last week by a strike of the Seafarers International

Union, sailed this week—though the strike was still going strong—with government-recruited crews.

But at midweek it was clear that the union considered that its fight was with the Maritime Commission rather than with the shipowners. Hence the President precipitously dropped the problem in the Mediation Board's lap.

Kearny Precedent

U. S. operation of yard on maintenance-of-membership basis is signal for drive by union along whole coast.

The government-operated shipyard at Kearny—the seized property of Federal Shipbuilding and Dry Dock—was being run last week on a "maintenance of membership" basis as recommended by the National Defense Mediation Board (BW—Aug. 30'41, p15). It thus became the first federal enterprise in which union membership is a condition of employment.

Navy Secretary Knox, who made the announcement, took pains to note that this was a temporary arrangement which would be altered if it was decided that the Navy would continue to operate the plant on a permanent basis. In that event, civil service laws will apply and, said Knox, "there will be no recognition of unions as such." But (as is more likely in the event of long-continued government operation) if a government corporation like TVA is formed to run Kearny, its "operation will be in conformity with the recommendations of the Mediation Board." Of course, it is still possible that an arrangement may be reached at any time whereby the company would regain control of its property, but this would almost certainly involve a maintenance-of-membership contract. Responding to the Knox statement that union members at Kearny will have to remain in good



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Style DC50 (combination welding and chipping goggle) is one of more than 300 different types of WILLSON Goggles designed for every conceivable industrial use and condition.

GOGGLES
RESPIRATORS • HELMETS • GAS MASKS

WILLSON
DOUBLE
PRODUCTS INCORPORATED
READING, PA. U.S.A.



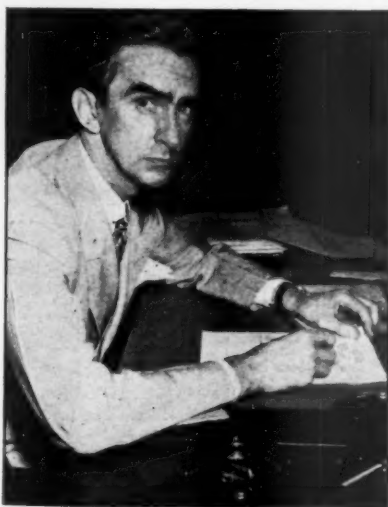
standing in order to hold their jobs, the union in the case—C.I.O.'s Industrial Union of Marine and Shipbuilding Workers—announced plans to press for union-shop agreements in all major shipyards on the Atlantic and Gulf Coasts. Its closed-shop campaign will be opened at once in the eight eastern yards operated by Bethlehem Steel, the tactic being to coordinate it with the steel Union's closed-shop demand for Bethlehem's mills (BW—Sep. 20 '41, p14).

Reilly for Smith

NLRB's new man seen as symbol of White House approval given to moderate policy that has been pursued recently.

What everybody expected happened last week and Edwin S. Smith headed for the limbo of jobless bureaucrats. President Roosevelt sent Gerard D. Reilly's name to the Senate in nomination for a five-year membership on the National Labor Relations Board. That act, with confirmation regarded as certain, closes a chapter in government labor policy which business found painful and costly.

Members of the original NLRB (J. Warren Madden, Donald W. Smith, and Edwin S. Smith) have now all been shunted out of government labor service. The change in personnel—and policy—began with the appointment of William Leiserson in the spring of 1939 to replace Donald W. Smith. Next, Harry A. Millis replaced Madden as board chairman. Both Leiserson and Millis are experienced arbitrators, famil-



The nomination of Gerard D. Reilly to succeed Edwin S. Smith as a member of NLRB means that the board now consists—for the first time—of three men all classed as moderates.

Business Week • September 27, 1941

The Art of Ts'ai Lun



Early in the First Century A. D. there dwelt in the Court of the Emperor Ho-Ti a eunuch of great accomplishment, his name . . . Ts'ai Lun. As a cheap and abundant substitute for the bamboo strip and woven silk then used for writing, Ts'ai Lun invented Paper.

For more than five centuries Chinese craftsmen kept secret the art of Ts'ai Lun. And over a thousand years had passed before it was revealed to the people of Europe. Even then, for hundreds of years the methods employed were slow and tedious, and paper was used only for writing and decoration.

What a contrast today! Paper is used by our armed forces for charts, targets and a multitude of records. It is also employed in various forms and grades for packing shells, steel, food and other defense materials.

Paper making in the United States would certainly astound Ts'ai Lun. In the last six years alone production has been boosted 73% . . . from some nine million tons in 1934 to sixteen million in 1940. The Paper Industry may well be proud of this accomplishment. Made with fewer Pulp Mills and only 13% more Paper Mills, it results entirely from increased use of modern methods and high speed equipment, plus creation in the South of a whole new pulp and paper industry.

In this, as in the great achievements of other American Industries, INCO Nickel Alloys have had a part. Exceptionally strong, tough, hard and rustless, they ward off wear and corrosion, assure dependable, economical operation of equipment producing for The Emergency.



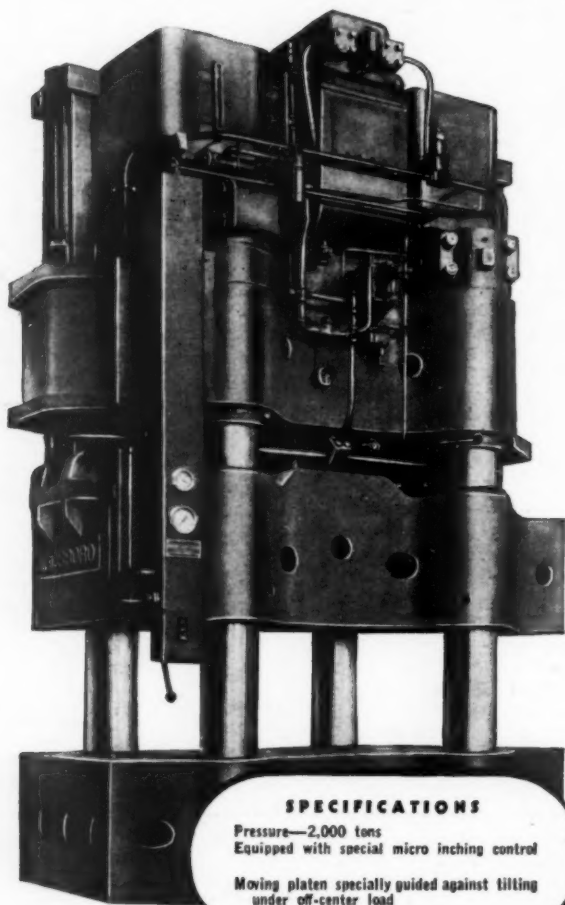
Massive modern machinery now turns out paper at speeds up to 1400 feet per minute. Monel and other INCO Nickel Alloys are used for vital parts to resist wear, and the destructive effects of the many corrosive liquids encountered.



THE INTERNATIONAL NICKEL COMPANY, INC., 67 Wall Street, New York, N. Y.



MEETING DEFENSE DEMANDS for Accuracy Plus Speed



SPECIFICATIONS

Pressure—2,000 tons
Equipped with special micro inching control
Moving platen specially guided against tilting
under off-center load

The first requirement this 2,000-ton Birdsboro Hydraulic Press has to meet is *extreme forming accuracy at high production speeds*. Built for a large airplane propeller manufacturer, it also must provide simple control and easy maintenance that will help speed production economically. This Birdsboro Hydraulic Press is one of many of various sizes at work in America's propeller plants.

Perfect companion to such speedy forming accuracy is Birdsboro flexibility . . . always standing ready to help solve tomorrow's new production problems.

BIRDSBORO STEEL FOUNDRY AND MACHINE COMPANY
Plants at Birdsboro and Reading, Pa.

BIRDSBORO

Hydraulic Presses

BUILDERS OF . Hydraulic Presses . Mill Equipment . Rolls . Special Machinery . Crushing Machinery

iar with practical aspects of industrial relations. Reilly, who now joins them, is an attorney from Massachusetts who has been the Solicitor of the Labor Department since 1937. His recent rôle in ousting Helen Miller from a Labor Department job because she was allegedly a Communist has led labor's left-wing to consider him an enemy.

• **Significance**—At any rate, Reilly's appointment is being interpreted as a White House endorsement of the more moderate policies which have recently characterized NLRB decisions. The trend away from the anti-business position with which the old board was identified has been especially marked lately by decisions in the Ohio Calcium case (BW—Sep.13'41,p61) and in the Hudson Motors and Porto Rico Steamship cases (BW—Sep.6'41,p50).

Although left-wing charges that NLRB has betrayed the purposes of the Wagner Act are not unexpected, its temperate, noncrusading attitude is generally interpreted by labor as evidence of the board's sensitivity to the need for uninterrupted production for defense.

GIMBEL AFTERMATH

Aftermath of the Gimbel department store strike in New York, which secured the 40-hour week for employees (BW—Sep.20'41,p40), was last week's announcement by five important New York City retailers that their stores would also go on a 40-hour basis. Companies making the announcement were Lord & Taylor, Saks-Fifth Ave., Abraham & Straus, Best & Co., and McCreery's. This brings to ten the number of big New York stores whose workers are on the 40-hour basis. The others, besides Gimbel, are Wanamaker, Hearn's, Norton, and Namm. In addition, three Newark, N. J., department stores—Hahne, Kresge's, and Bamberger's—announced five-day work weeks.

Acceptance of the 40-hour week by New York department stores presages a union campaign to wrest comparable standards from retailers in other parts of the country. C.I.O.'s United Retail and Wholesale Employees Union is assigning new groups of organizers to the department-store field.

HOSPITAL PLAN EXTENDED

Effective Nov. 1, General Motors will extend its Employee Hospitalization Benefit Plan so that wives and dependent children of G.M. workers will be eligible.

In August of this year, 275,868 of the company's employees were enrolled in the plan. Since 1939, when the program was launched, 46,514 have received hospital or surgical benefits. This health insurance costs the G.M. worker 75¢ a month and entitles him to a \$4 daily hospital benefit, an allowance for

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special service, and an allowance for surgical cost up to a maximum of \$150.

In Michigan, the plan is organized through the Michigan Hospital Service and the Michigan Medical Service. In other states where G.M. plants are located, similar organizations participate in its operation. Employee enrolment is optional and will be elective for family coverage as well. Changes in the plan are made by the company in consultation with labor organizations.

CAPTIVE MINES TRUCE

Some 40,000 coal miners went back to their digging in the captive mines owned by the steel companies this week, thanks to the work of the National Defense Mediation Board. Resumption of coal production for the steel mills does not signify that the dispute (BW-Sep. 20'41,p8) has been finally settled, but it does mean that NDMB has at least 30 days in which to frame and urge a peace formula, for John L. Lewis and the steel companies have agreed to the status quo for that period. After that time, a strike can only be called after NDMB is given three days of warning.

P.S.

A.F.L.'s Hod Carriers Union wound up its first convention in 30 years (BW-Sep.20'41,p41) by returning to office its present executives and beating down every rank-and-file move designed to limit the power of officers. A motion to "purge racketeers" was defeated. . . . Rail mediation, over union demands for whopping pay boosts for 900,000 railway employees (BW-Aug.9'41,p62), continued in Chicago this week. The President's fact-finding board got White House permission to extend the hearings to Oct. 18 and set Nov. 1 as the date for submitting its report. Meanwhile, some of the roads indicated that if the unions got the better part of what they were after, rail management would file petitions with the Interstate Commerce Commission to raise rates. . . . C.I.O.-Little Steel bargaining conferences (BW-Sep.20'41,p14) resumed this week after a postponement which allowed the conferees to concentrate on getting the captive mines reopened. . . . The revolt undertaken against John L. Lewis in the anthracite fields over the \$6 special assessment in addition to the regular union dues (BW-Sep.20'41,p38) continued during this week as miners turned down another request of their officials to return to their jobs. . . . The federal court in Chicago upheld the Wage-Hour Division in its injunction proceedings against Swift & Co. last week. The case involves some \$5,000,000 in suits for overtime pay and turns on the question of what categories of workers get overtime exemptions for doing seasonal work.



Eyes on the Payroll Set-Up!

● Have you looked impartially at *your* payroll procedure? How well does it handle today's expanding volume? Will it be effective later on when business slackens? Can you reduce payroll preparation costs? Increase accuracy? Obtain greater safety for your employees, yourself, and your funds?

The following folders will help you decide. Check the ones you want and mail the coupon:

- ☐ **CUT PAYROLL POSTING TIME 1/4**—Tells how the Todd Form-Master completes earnings record, payroll sheet and check stub in *one swift operation*...increases accuracy...saves time and money.
- ☐ **HAVE YOU EVER FACED A "45"?**—Explains how the Todd ABC System eliminates the cash payroll and removes the danger of payroll hold-ups, by providing easy-to-cash checks with exclusive protective features.
- ☐ **IMPOSSIBLE! OUR ACCOUNT CAN'T BE OVERDRAWN \$3000**—Outlines the ABC System of payroll procedure that protects issuer, employee, bank and cashier against losses these checks are designed to prevent.
- ☐ **TRANSKRIT—SPOT-CARBONIZED CHECKS AND FORMS**—Contains specimen forms that provide cleaner, clearer copies in faster time at less cost.
- ☐ **TODD BLUE STREAK ELECTRIC CHECK WRITERS AND SIGNERS**—Tells how they imprint, protect, add, list, count and sign checks with fraud-defying signatures backed by insurance—all in *one operation*.

COMPANY NAME _____
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STATE _____
BY _____



Mail to The Todd Company, Inc., Rochester, N. Y.

ROCHESTER OFFICES IN ALL
NEW YORK PRINCIPAL CITIES

FINANCE

I. B. A. Salesman

That's the job John Fleek will tackle as president and information committee head, succeeding Emmett Connely.

Most extensive and costliest single piece of work now being carried on by the Investment Bankers Association is its public information campaign. Consequently, the association's biggest job is that of full-time, paid chairman of the public information committee.

This post has been held since its creation a year and a half ago by Emmett F. Connely who happens also to fill the unpaid post of president of the I.B.A. Mr. Connely, on leave of absence from the presidency of the First of Michigan Corp., Detroit, some time ago announced that he would not stand for re-election, pointing out that he desired to return to his business.

• **New Nominee**—To succeed Mr. Connely, the association's governors have named another Midwesterner, John S. Fleek, of Cleveland. Inasmuch as nomination traditionally has meant election, Mr. Fleek is scheduled to take over the presidency and the chairmanship of the public information committee at the association's annual convention in Hollywood, Fla., Nov. 30 to Dec. 5.

Mr. Fleek, Harvard B.A. and M.B.A., a native Ohioan, was born in Newark in 1893. His early business experience was with Fleek & Son Co., a wholesale grocery concern in Newark established by his grandfather in 1861. He joined Hayden, Miller & Co., Cleveland investment bankers in 1921, became a partner in 1927, and will take leave of absence from the firm to take up his new duties.

Mr. Fleek has been a member of the association's public information committee since its formation. At the outset, this group's big job was to fight compulsory bidding for issues of corporate securities. In this, it was unsuccessful, at least to the extent that SEC adopted Rule U-50 requiring competitive bids on electric utilities' flotations.

• **Going to Public**—Many observers assumed that the public information committee's work would be largely curtailed if not discontinued after Rule U-50 was announced. Much earlier, however, many active participants in the public information program had come to realize that the objective should be much more general than pushing specific campaigns. Mr. Fleek, outspokenly of this opinion, has contended that investment bankers couldn't expect much popular



John S. Fleek of Cleveland is slated to become president of the Investment Bankers Association and paid chairman of its public information committee at the annual convention.

support without going directly to the public to prove that bankers are, among other things, human beings.

Putting this theory to the test, he has filled speaking engagements whenever

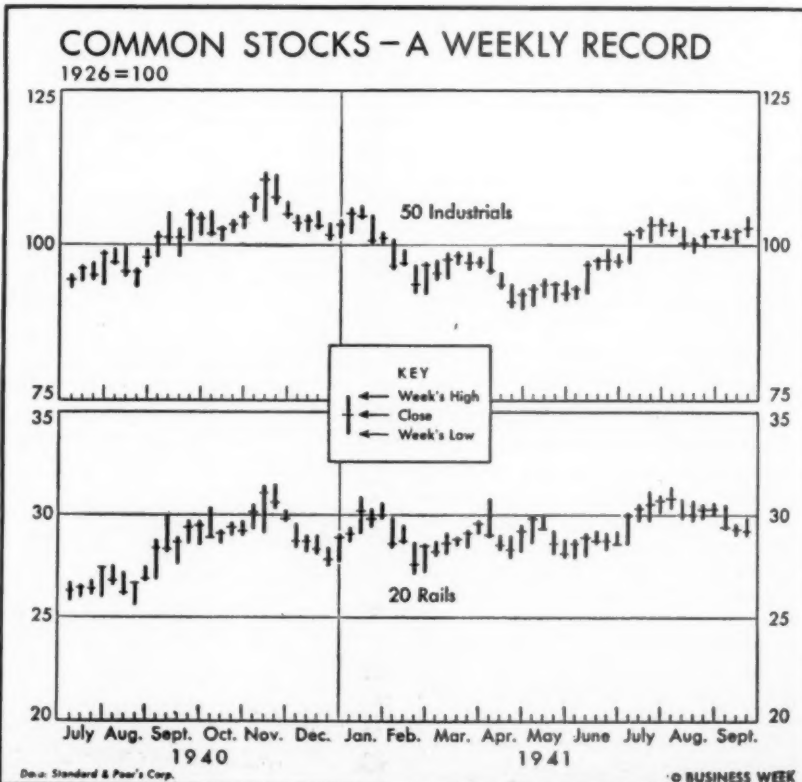
BANKERS
for
INDUSTRY

• IN CENTRAL NEW YORK STATE

IN CENTRAL NEW YORK STATE
It's the
FIRST TRUST
& DEPOSIT COMPANY
SYRACUSE, N. Y.
Member Federal Reserve System
Federal Deposit Insurance Corporation

occasion presented, specializing in visiting smaller communities' business men's groups rather than those in larger cities. The public information committee increasingly has been devoting itself to this grass-roots campaign; as a result, instead of folding after the rebuff on competitive bidding, it has been enlarged and made more representative geographically (BW—Jun. 7 '41, p62).

Vice-presidential nominations that will make up the rest of the ticket include Edward H. Hilliard of Louisville, John K. Starkweather of New York, and John O. Stubbs of Boston, all of whom are now serving, and Jay N. Whipple of Chicago, and John Clifford Folger of Washington, D. C.



F.P. Refinancing

Florida Power & Light plan, outlined to SEC, would simplify capital structure and cut down fixed charges.

Florida Power & Light Co. expects to kill several birds with one stone in its proposed refinancing plan, outlined this week to the Securities and Exchange Commission. The hearing followed registration last week of \$69,000,000 of securities proposed to be offered soon for sale by competitive bidding. Consummation of the plan would (1) simplify the company's corporate setup as required by the Utility Holding Company Act, (2) provide a financial structure more capable of withstanding severe economic stress and other contingencies, (3) reduce interest and dividend requirements by \$2,700,000, (4) eliminate alleged writeups, and (5) subordinate the parent American Power & Light Co.'s holdings of Florida Power's debt to the publicly-held obligations of the latter.

• **How It Would Work**—To accomplish this, Florida Power would issue \$45,000,000 of first mortgage bonds, \$10,000,000 of sinking fund debentures, and 140,000 shares of cumulative preferred stock. The company expects to pay interest of around 3% on the new debt and 5% on the new senior stock. Proceeds would be applied: \$53,170,000 to redeem at 102 1/4% of par the outstanding 5% bonds; \$15,693,370 to redeem at \$110 a share the outstanding \$7 preferred stock.

The parent company, under the plan, would turn over for cancellation, without consideration, its holdings of \$26,347,700 worth of Florida Power debentures and preferred stock but would retain its F.P. common stock. In addition, the parent A.P. would give F.P. some \$700,000 of notes, a \$1,000 open account loan, and 60,000 shares of stock in the Utilities Land Co. A.P. would also waive all claims to dividend arrearages on the second preferred stock of Florida Power.

• **A.P.'s Investment**—D. W. Jack, treasurer of American Power, observed that the parent's total investment in Florida Power would not be changed by cancellation of the securities because this cancellation plus debt-reduction would add a corresponding value to F.P.'s common stock, the entire 2,500,000 shares of which are held by A.P.

In its order for this week's hearing, the SEC said it would seek to determine whether it should prohibit F.P. from paying dividends on its stock, and whether it should order A.P. to return to F.P. the dividends received last July 1 on A.P.'s holdings of preferred stock.

U.S. tests giant rope

Imagine a rough sea. A disabled ship in tow. Lives, property at stake. Will the tow rope stand the strain?

The U. S. Bureau of Standards has the answer. Here, in its testing laboratory, this huge, foot-thick rope is subjected to a pull of 100,000 pounds—a strain which will snap any ordinary cable like string.

Why set up such severe tests? To give Uncle Sam—world's biggest buyer—proof of performance before he buys.

In business, too, proof of performance is vital. But today's emergency allows scant time for testing. So careful buyers rely on products that are pre-tested, proved before you use them . . . products such as Hammermill Bond.

Today, more printers recommend Hammermill Bond for letterheads and business forms than any other watermarked paper. Because it's pre-tested in the making . . . proved satisfactory by 29 years of use.

FREE! "21 Ways To Keep A Clear Desk"—tested ideas on how to organize your work, speed routine, get rid of details . . . time-saving helps for specific office jobs. Mail coupon for copy.



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☐ "21 Ways" book
☐ Test sheets of Hammermill Bond ☐ Test sheets of Hammermill Mimeo-Bond
 Name _____ Position _____
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DOES SPEED-UP CAUSE MORE ERRORS in your typing? Does one mistake mean retyping the whole sheet? Then switch to Hammermill Bond. Pre-testing proves it erases cleanly. Saves time. Saves paper. Gives better-looking work. Yet 25 letters or forms on Hammermill Bond cost only 1¢ more than on cheap, unsatisfactory paper.



BEST WAYS TO MULTIPLY MESSAGES. 1. For type-written work, use Hammermill Bond. Takes typing cleanly, erases neatly, makes clear carbons. 2. On gelatin or spirit duplicators, use Hammermill Duplicator. Gives 300, or more, readable copies. 3. On stencil duplicators, use Hammermill Mimeo-Bond. Makes 3000, and more, clear copies. Check coupon for samples of grades you use.

HAMMERMILL
 LOOK FOR THE WATERMARK—OUR PLEDGE OF BETTER PAPER



OLD TOWN takes the CURL out of CARBON

"AREN'T you ashamed," thundered Mr. Davis, "to turn out such a streaky, smeary copy of a brief?"

"Objection overruled," I countered. "The most capable secretary cannot do clean work with poor carbon."

P.S. We switched to OLD TOWN'S Curl-proof DAWN and now I get bouquets instead of brickbats. Try it in your office!

Curlproof DAWN Carbon does not curl even in bitter cold, produces clean, bright, easy-on-the-eyes copies. Order a box today. It costs no more than ordinary carbon. Write for free copy of our booklet "The Secret of Beautiful Letters".

OLD TOWN Ribbons & Carbons
"MAKE A GOOD IMPRESSION"

730 PACIFIC STREET, BROOKLYN, N. Y.

THE MARKETS

Seeking Opportunities

That Wall Street "wise money" still is searching for investment opportunities was evidenced this week by the sale at a premium on Tuesday of \$18,000,000 of Erie Railroad Co., Ohio division, first mortgage 3½% bonds of 1971. The bonds were sold by competitive bidding, a new method of sale procedure for railroad long-term mortgage bonds. The transaction was also unique as an instance of large refunding by a major railroad while yet in bankruptcy. First Boston Corp., which won the award on a bid of 101.0959, immediately re-offered the bonds to the public at 102½—but allowed a ½-point discount to all buyers for their own account of more than \$500,000 principal amount.

This sale marked the initial venture into the competitive field by Morgan Stanley & Co., Inc., who bid 99.27½—nearly two points below the winning bid. Morgan Stanley had been consulted by the Erie reorganization managers in setting up the issue but didn't take over the issue at a negotiated price because of opposition by Robert R. Young, who controls Alleghany Corp.

Announcement of the par-plus bid on the Erie securities spurred the other

railroad securities into rallying after the downward movement which had prevailed since the railroad labor strike vote was announced. Also helping the rail stocks are (1) maintenance of revenue freight carloadings (between 913,000 and 914,000 cars a week) around the 1941 top and (2) announcements that numerous major roads are using their increased revenues to pay dividends on their common stocks and redeem part of their funded debt.

The venerable market paradox, "Buy on release of bad news and sell on good news" held true in the government-bond market this week. Until Wednesday, prices of United States government securities had been declining as traders expected the Federal Reserve Board to increase member bank reserve requirements to the statutory limit. On the news, governments first sold off, then rallied—some as much as half a point.

The Federal Reserve Board expects that few, if any, banks will be forced to liquidate any of their government bond holdings in order to meet these new requirements, and it observed that "a large majority of the member banks will be able to meet increased requirements out of existing excess reserves and all but a few of the remainder by drawing upon a portion of their deposits with city correspondents."

Prices of industrial equities this week showed modest strength until Wednesday, when Secretary of the Treasury Morgenthau proposed to the House Banking and Currency Committee, during hearings on the Price Control Bill, that profits of all corporations be limited to 6% of their invested capital—and that a 100% tax absorb all net income above that 6% amount.

In the bond market, active acquisition was noted of early-maturing below-par securities of railroads and other companies whose cash revenues during this defense boom may be applied for debt redemption at or before maturity date. The 4% notes of 1946 of the New York, Chicago, and St. Louis Railroad were active the latter part of this week. Directors admitted they were considering refinancing of these notes soon after the Oct. 1, 1941, maturing notes had been liquidated.

Security Price Averages

Stocks	This Week	Week Ago	Month Ago	Year Ago
50 Industrial	102.7	102.3	101.5	104.8
20 Railroad	29.2	29.3	30.3	29.4
20 Utility	44.5	44.5	45.0	60.7
Bonds				
20 Industrial	91.3	91.3	91.0	88.6
20 Railroad	62.9	63.6	65.5	61.2
20 Utility	101.6	101.6	101.3	100.7
U. S. Government	111.2	111.2	111.5	108.8

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

This advertisement is not, and is under no circumstances to be construed as, an offering of this stock for sale, or as a solicitation of an offer to buy any of such stock. The offering is made only by the Prospectus.

NEW ISSUE

115,120 Shares

Buffalo Forge Company

Common Stock

(Par value \$1 per share)

Price \$18.50 per share

Copies of the Prospectus may be obtained from such of the undersigned as may legally offer this stock in this State under applicable securities laws.

HORNBLOWER & WEEKS

BLYTH & CO., INC. SHIELDS & COMPANY PAUL H. DAVIS & CO.

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F. S. MOSELEY & CO. EASTMAN, DILLON & CO. G. M.-P. MURPHY & CO.

PIPER, JAFFRAY & HOPWOOD

September 23, 1941.

COMMODITIES

Copper Subsidy

"Cost-plus-1¢" plan will add about 75,000 tons to U. S. production. Chile asks higher price for its exports.

It's obvious—and has been for some time—that the pressing need in copper is more supplies, just as soon as the U. S. can get them. Consequently, though Washington was concentrating its efforts on speeding up imports from Latin America and other sources including Canada and Northern Rhodesia, officials were all set this week to put into effect their "cost-plus-1¢" plan to subsidize high-cost U. S. producers without disturbing the Office of Price Administration's 12¢-a-pound price ceiling.

Net effect of the plan would be to add only about 75,000 tons of copper a year to the 1,100,000 tons now being produced in this country—but every little bit counts when you've got estimated needs totaling 800,000 tons over estimated production.

• **Absorbing the Difference**—Under the plan, which was suggested several months ago by Price Administrator Henderson, the Metals Reserve Co., an RFC subsidiary, is to purchase copper from high-cost producers at exactly one penny above "out-of-pocket" costs. In most cases, this would mean that Metals Reserve would be buying at prices above the 12¢ ceiling, but the price to consumers remains at 12¢, with Metals Reserve absorbing the difference.

At least three companies—Copper Range, Quincy Mining, and Isle Royale Copper—early in the week indicated their readiness to take advantage of any such offers that Metals Reserve might make. Some companies, however, have been reluctant to support the plan for the so-called "out-of-pocket" costs would be determined by an independent audit and would not include depreciation, depletion or amortization of deferred charges. First of all, these companies don't want to have to bare all to an outsider. Secondly, they've always been taught that depreciation, depletion, and amortization should always be considered as costs—for equipment wears out and must be replaced, and property doesn't remain static in value as its vitals are removed. In addition, high-cost producers have been waiting for assurances that the inducement would hold for at least two or three years.

• **Cheaper to Expand**—Meanwhile, special attention is being given to producers now operating who could increase their output at a higher price, for

that would be cheaper than reopening long-shut or inactive mines.

One snag has appeared in efforts to step up copper imports. The deal to get Chilean copper is up for renewal—

and Chile wants more money to carry on public works projects. Last week Metals Reserve bought Chilean copper at 10¢ a lb.; now, however, it looks as though the price will rise to 11¢ a lb.



MUSCLES OF STEEL
PUSH RUSH ORDER DEFENSE JOBS

★ MOBILIFT makes manpower more productive, yet improves working conditions. MOBILIFTS lift, carry, and stack goods in units weighing up to one ton with tireless regularity. They work systematically in narrow aisles, in and out of trucks, freight cars and elevators. Forks lift to 9 ft. . . operate for less than 15¢ an hour and prices begin around \$1100, factory. Put this efficient system of materials handling to work for you. Increase storage space not only by stacking goods to ceilings but also by keeping aisles down to a minimum. A MOBILIFT engineer, near you, will outline a system to speed up your handling problems. Write factory for his name and literature.

VAUGHAN MOTOR COMPANY
872 S. E. Main Portland, Oregon

MOBILIFT

"NOVEL"
"PRICELESS"
"A GEM"
"DON'T MISS IT"

Elliott
ADDRESSING MACHINES



say Business Leaders Everywhere

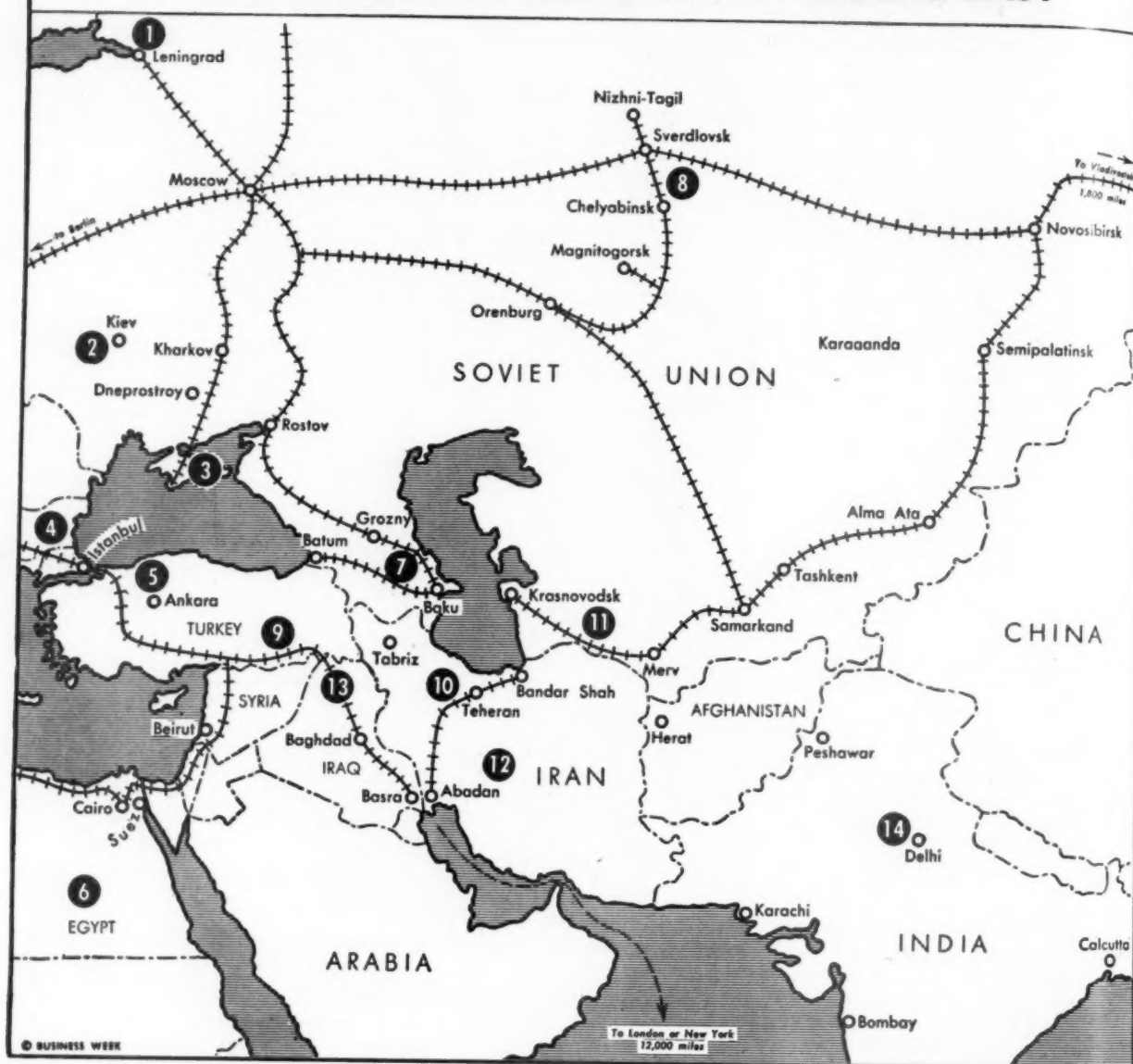
This is one business booklet you'll read from cover to cover! An intimate behind the scenes narrative of inventive genius that has made hundreds of men write "once I started to read I couldn't put it down." Unanimously they have said—"you must offer this broadcast—any business man will get a big kick out of it. And, incident-

ally, learn many things that may prove very valuable in his own operations."

"The Story of a Father and Son or Unscrewing the Inscrutable" is that kind of a book. Write for your copy on your business letterhead, (important) and mail to address below. No cost or obligation involved.

The Elliott Addressing Machine Co., 151 Albany St., Cambridge, Mass.

A NEW FRONT DEVELOPS IN THE MIDDLE EAST



WINTER CAMPAIGN

With the sureness which has marked their campaigns since the invasion of Poland two years ago, the Germans some time ago started setting the stage for a winter campaign in the more comfortable climate of the Mediterranean and the Middle East. Though large German forces continued to besiege Leningrad (1), Nazi generals have already shifted the whole force of their attack to the south where one army of driving panzer divisions is fast pushing east from Kiev (2) toward Kharkov, while another pushes past the neck of land leading to the Crimea (3)—with its Black Sea naval bases—toward Rostov in the heart of the Don coal basin.

Simultaneously, Berlin's most astute

diplomats are shuttling back and forth between Turkey (5) and Bulgaria (4). Nazi advisers in Sofia last week forced the Bulgarian government to call up and arm a quarter of a million men ostensibly to join the attack against Russia. But it is the opinion of neutral diplomats in neighboring countries that Berlin wants to use the Bulgarians elsewhere—probably against the Turks who are being pressed to allow Axis troops to cross their country in order to complete pincer attacks on the Caucasus (7) and on Suez and Egypt (6). Once in Turkey, Germany would attempt to push down the Berlin-to-Baghdad railroad (9) to the rich Mosul oil fields (13) and to Britain's great Middle East oil base in Iran (12).

Britain has not been idle. Months ago the able General Wavell was trans-

ferred from the eastern Mediterranean to India (14), and within the last two months Britain and Russia have forced Iran to allow their troops to occupy the country, assure a supply route from the Gulf of Iran to the Caspian over Iran's vital, though single-track, railroad (10). From its terminus on the Caspian, Russia will either build a short line to join its Turkestan rail system (11), or transport incoming supplies across the Caspian in its fleet of modern fishing vessels. It is on this route—rather than the long trans-Siberian rail line to Vladivostok—that Russia must depend for delivery of the bulk of the British and American supplies which are promised to bolster her opposition to the Germans and to supply her expanding industries east of the Urals (8).

BUSINESS ABROAD

Winter War Stage

Near East will be the battleground, with outcome in large measure dependent on flow of U.S. equipment.

There should be no misunderstanding on the part of American business men about the course of the war during the winter or the changed supply demands that will inevitably arise. Germany's winter campaign plans are unfolding rapidly. Britain may again be heavily bombed. Certainly the air and sea raids on convoys in the North Atlantic will be intensified. But the focus of the entire Nazi campaign for the next six months is the Middle East.

• **Decisive Stage**—There are several reasons for this. The Russian campaign has reached a decisive stage. Leningrad, biggest munitions center in northern Russia and transportation crossroads through which all Atlantic traffic arriving by way of Murmansk must pass, has been surrounded and is being slowly strangled. However, this front is not likely to become active again during the winter.

The Smolensk drive toward Moscow has been temporarily abandoned in favor of an intensified push in the south. One reason for this is that the Ukraine is the main supply reservoir of the Russian fighting forces. Half of this key industrial and farming region is already in the hands of the Germans. If the rest of it—including Kharkov and the rich coal region around Rostov—can be captured, Moscow will be cut off from its most important domestic supply bases.

• **What Berlin Sees**—But there are longer-range reasons just now for Germany to shift the main Russian campaign to the south. With the British and American supply missions already in Moscow, it is plain to Berlin that both countries are determined to pour supplies to the Russians in a desperate effort to maintain an active eastern front against the Germans and stall off a Nazi drive into the strategic British preserves in the Near East.

If the Ukraine is captured quickly, Russia not only loses its most important equipment bases but also the route over which the Allies obviously are planning to shuttle the "torrent of supplies" which they have promised the Soviet Union—the route through the Caucasus and Iran to the Indian Ocean (map, page 74).

• **Two-Pronged Drive**—It is to forestall this plan that the Nazis this week are

SPLIT-SECOND SPEED counts ...in fighting fires!



What happens in the first minute means more in fire fighting than the next half hour. Quick, sure-handed action is imperative. Are your extinguishers geared for speed?

LUX extinguishers get fires out in a hurry, because they hit blazes hard with one of the fastest of all known extinguishing agents—carbon dioxide. This clean, dry snow-and-gas is constantly tested and timed by stop-

watches at Kidde Proving Grounds, where LUX continues to prove its famous fire-fighting speed.

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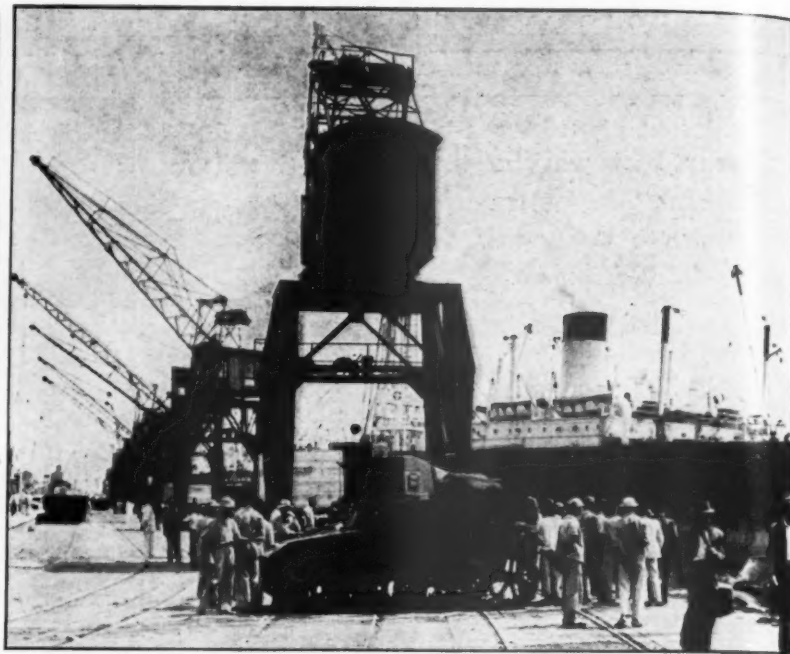
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Atlantic. In spite of the drain of despatching defense supplies to Great Britain and the Soviet Union, Washington recently agreed to fill a \$100,000,000 order from the Brazilian government for war supplies as a part of the hemisphere-defense program.

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pushing a two-pronged drive across the Ukraine—from Kiev toward Kharkov, most important industrial center in the Ukraine; and along the shore of the Black Sea, aiming at Rostov in the Don River basin but incidentally threatening the effectiveness of the important Soviet Black Sea naval bases in the Crimea.

But in the midst of this stepped-up Russian campaign, Germany is also laying the groundwork for a winter push which will move along three fronts, all converging ultimately on Iran.

First of these, and the one that is bound to come into the news in the next few weeks, is Turkey. There need be no puzzlement about Bulgaria's request of a few weeks ago to move naval vessels through the Turkish-controlled Dardanelles. Bulgaria has no navy of any consequence but the Nazis are known to have assembled a small fleet of supply and attack vessels in Bulgaria's two Black Sea ports. They are preparing to use them against the Russians in the Black Sea and later to connect with armed forces which they expect by then will be operating along the eastern shores of the Mediterranean.

• **Turkey's Zero Hour**—Bulgaria's request was actually a poorly-masked German intimation to Ankara that it would like Turkish cooperation in carrying out its intentions in the Near East. Mobilization of the Bulgarian army this week

and the steady concentration of fresh German troops along the Greek and Bulgarian frontiers facing Turkey indicate that Berlin is going through its customary second stage of pressuring a neutral. Turkey's zero hour is not more than a few weeks away.

If Ankara fails to capitulate quietly, as the Bulgarians did last spring, Germany will strike with force, for Nazi plans during the last few weeks have reached the point on their schedule which calls for operations in Turkey.

• **Other Fronts**—The other two fronts along which Germany will fight in its effort to drive the British out of the Mediterranean and the Near East are (1) North Africa and (2), depending on the success of the present Ukrainian drive, the Caucasus route towards the oil fields of Iraq and Iran.

Even before the Ukrainian campaign is finished, the first skirmishes in the Mediterranean sector are being fought. For more than a month, British submarines have been gunning for great Axis transports which are already busily ferrying troops from Sicily to Libya. Two weeks ago British forces which guard the Egyptian frontiers were attacked by an Axis tank division from Libya, obviously an effort to test British strength. And this week the Italians, still wary of risking the few remaining units of their fleet, tried a sporadic torpedo-boat attack on the vessels sheltering in the shadow of Gibraltar.

• **British Strategy**—This is the setting for the new winter campaign which is just now developing—and the pattern that it is likely to follow. It is plain now that Britain foresaw it many months ago when London transferred the able General Wavell to the Middle East command. In the months that have intervened, he has massed a large army and organized it for the attack which can't now be far away. Further to the west, the British have been pouring men and machines into Syria and Egypt. The British fleet in the eastern Mediterranean, which was so badly battered in the Battle of Crete, has been repaired and strengthened. Dozens of modern American pursuit planes and a sprinkling of bombers are arriving monthly at British bases. More than 500 American-made light tanks have already arrived in North Africa, and others are on the way.

This is the front which American industry must prepare to supply. First real battles in the campaign will be fought with equipment already on the field or on its way across the 12,000 miles between New York or London and the shipping bases at Suez or Abadan. But the outcome will rest on the ability of this country to provide overwhelming quantities of tanks, planes, and munitions during the winter and spring, and to assure enough ships in which to deliver them.



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• The Rath Packing Company, Waterloo, Iowa, is one of the nation's outstanding independent packers. Founded in 1891, its first year's sales totaled about \$100,000; its 1940 sales, over \$58,000,000—indicating its phenomenal growth in just under 50 years of meat packing progress.

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German Surprise

Private interests reacquire Hapag and North German Lloyd lines. The public is cautioned on potato consumption.

BERLIN—Two shipping names well known to the American traveling public made news in Germany this week.

Private investors in the great port cities of Bremen and Hamburg have rebought from the German government a controlling interest in both the Hamburg-American Line and North German

Lloyd. Until the outbreak of the war, Hamburg-American, better known to many as Hapag, operated a fast freight express service between Hamburg and New York with such liners as the Deutschland and the Hansa. North German Lloyd was popular on the same run with its express passenger service using the luxury liners Europa and Bremen, and the slower Columbus which was scuttled in the Caribbean when it was trapped by a British naval vessel.

• **A Real Surprise**—Reacquisition by private capital of the controlling interests in these two old companies came as a surprise to Germans. Both had been privately operated until shortly after the advent of the Nazi régime when they were taken over by the government to prevent collapse during the dark days of the depression. At that time, drastic Nazi controls over foreign trade made it doubly difficult to operate at a profit.

Although the Hitler government has said repeatedly that it had no intention of operating the companies permanently, German financial circles were surprised that the deal should come now when neither line is able to operate because of the war and when the postwar outlook is uncertain. Nevertheless, both stocks had been heavily traded on the Berlin Boerse for many weeks, and at the time of the deal the shares were selling at nearly double pre-war prices.

Germans watched the deal with special interest because rumors have been current in Berlin that the government is considering the imposition of drastic new stock-market regulations—possibly including price controls. It was a revival of this rumor last week which caused stocks to slump, in some cases to the lowest levels since the war began.

• **The Potato Crop**—Despite continued reports of German advances along the Russian front, the public's interest this week continued to be focused on the potato crop. No one outside the Reich can appreciate the importance Germans attach to this homely crop unless he realizes that even in peace times potatoes make up 30% of Germany's diet.

With the drastic rationing of all other foods which has been forced by the war, German consumption of potatoes has increased more than 75%. This still means that Germans eat only a bare third of their normal crop. But the increased consumption of potatoes forced the government to warn the public this week that it must exercise special care this winter not to waste potatoes because Germany needs enormous quantities for livestock fodder and for commercial alcohol. A warning was also published that restaurants will serve only unpeeled potatoes because 15% of the potato is lost when peeled by hand, and 30% is lost when machine-peeled.

One tip concerning the strain on the country's transportation came to light when food authorities, estimating that



BAKER TRUCKS are vital to industrial production

• As war needs are again challenging the productive capacity of America, Baker trucks are recognized as essential equipment by government agencies. The Baker plant—its own productive capacity greatly expanded—is operating night and day to meet the vital requirements of the Army and Navy, government arsenals and private corporations striving for maximum output of defense materials.

Baker Trucks, now on the Priorities Critical List of the O. P. M., belong on the "critical list" of every manufacturer faced with material handling bottlenecks—in peace or war. If you are seeking maximum productive efficiency from limited floor-space, machinery and man power, a Baker representative can probably suggest a solution.

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525,000 freight cars will be required to transport the potato crop to market, admitted that the shortage of rolling stock caused by the transfer of thousands of cars to the occupied sections of Russia (where Germans have systematically changed the gage of the railroads to conform to the German standard) threatens orderly marketing of the crop.

Canada's New Job

More and more, Ottawa is acting in liaison capacity for London and U. S. Conscription of labor may be proposed.

OTTAWA—Obviously with the approval of both London and Washington, Canada is definitely assuming the position of liaison between the British Empire and the United States. It is the rôle long ago staked out for the country by Prime Minister Mackenzie King and the war emergency is giving it recognition.

First major step toward making the Dominion bring both sections of the English-speaking world closer together was taken in 1938 when Canada deliberately sacrificed advantages under the Ottawa Empire Agreements of 1932 to permit the United Kingdom-United States trade agreement and the triangular trading arrangement which included Canada. That step is credited with increasing American sympathy for Britain's cause when war broke the next year. Since the start of the war, Ottawa has increasingly functioned as go-between, that position being strengthened by the joint defense pact for North America and later by the Hyde Park agreement for pooling U. S.-Canadian aid to Britain.

• **Mackenzie King**—The stage has now been reached where the Canadian Prime Minister is openly assuming the position of the Empire's interpreter and spokesman to the United States. He was functioning in that position when he made his recent appeal from London to the United States for a more definite alignment of North America against the Nazi's "new order." He confirmed his acceptance of the job in his broadcast from Ottawa last week, addressed largely to the U. S. and calling for a joint and all-out stand by the free nations as the only means by which civilization can be saved.

• **Canadian Example**—In appealing to Americans as well as Canadians to make every effort now to ensure Hitler's defeat, Mackenzie King might have been expected to announce a 100% war program for Canada as proof that he was not asking the United States to do more than the Dominion was doing, but his failure to make such a declaration was



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defense;
help their
customers;
help solve their own
current problems;
help build a sound
foundation for fu-
ture business.

American business possesses tremendous "stock piles" of useful information. This information needs to be distributed quickly where it will do the most good. You have some of it. But, chances are, it's your customers that need it.

You face new and perplexing problems today. So do your customers. You would probably be grateful to your suppliers for any help they might contribute toward the solution of your current problems. So would your customers appreciate your help.

In peace time, business men need information if they want to progress. In war time they must have information if they want to survive. That is why many business papers today are accorded top rating for cargo space to England and Australia.

That is why business papers are good vehicles of communication for advertisers who have useful information to convey.

"What Do I Know That Will Help?"

That is the question to ask yourself when you are wondering how advertising can help solve today's customer relations problems.

Your advertising opportunity today is the chance to speed specific help to dealers, jobbers, and ultimate customers; pertinent news; ideas for speed-ups and short-cuts; ways to increase their workers' efficiency; ideas that will help get more out of the present set-up; literature designed to help with new problems.

You don't have to be a "big" company or a "big" advertiser to do these things. Anyone can at least put into his business paper advertising the things that he would say to an irate customer who phoned for an explanation of a delayed order. You can start by telling the facts concerning your position and your efforts to speed deliveries. Then maybe you can suggest something he can do in the meantime. Even if it isn't the whole answer to his problem, he'll love you for trying.

However you do it, you help yourself by helping your customers and prospects.

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"TELL ALL #2" will be published as a series of booklets. "How To Determine Specific, Valid and Adequate Business Paper Advertising Objectives Today," is the title of the first which will be released in the near future.

It will contain true-life stories reporting how some manufacturers went about finding out how they could advertise profitably today. It will tell what simple steps lead quickly to a recognition of the customer's current needs. It will suggest how to analyze those needs in relation to your own situation, and how to go about developing a specific "something" to help.

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no surprise to those who are familiar with Canadian parliamentary procedure. Practice requires such announcements to be made to the House of Commons—although in a critical emergency the process may be modified. No one here now doubts that a program which will enlist the full strength of the nation in the war effort is coming soon—at the latest when Parliament meets early in November.

The program will include full enlistment of manpower—by conscription or some effective alternative. It is possible that it will include conscription of labor for the war industries. And conscription of labor, if it comes, may force some kind of state control over all industry—in order to assure labor that it is being conscripted to work for the nation and not for private interests.

• **Labor Front**—With sections of war industry still strike-bound, Ottawa is cautiously hardening its attitude toward trouble-makers. Latest move makes strikes in a war industry illegal unless employees register majority approval in a poll taken under the direct supervision of the Department of Labor. Previously, a strike was illegal until a conciliation board had given a finding in a dispute. This restriction is continued and a decision to strike can be voted only after a conciliation award has been made. A fine of \$500 and up to twelve months imprisonment are penalties for breach of the new order either by striking or inciting others to strike.

Most serious current strike is at McKinnon Industries, in St. Catharines, which supplies parts for mechanical transport to Canadian General Motors. Union demand for a 10¢-an-hour wage increase has been met by Labor Minister McLarty's refusal to sanction any exception to the government's wage ceiling-living cost bonus order (BW-Jul.1941,p14) which is compulsory for war industries. Payment of the increase demanded would be illegal under the order.

• **Supply of Workers**—At the same time, the Dominion Bureau of Statistics issued an official report on Canada's labor supply situation which declares that to meet the demands of war industry, married women must enter industrial work at an increasing rate and workers must be transferred in greater numbers from non-war to war industry.

Since the start of the war, Canada has been enlisting manpower at the average rate of 40,000 men a month, of which 14,000 have gone to the combatant forces and 26,000 to industry. So far, natural increases in the labor supply—through youths leaving school to start productive work—have provided some 10,000 workers a month. Recently, however, Agricultural Minister Gardiner declared that Canada could place 1,000,000 men in the armed forces and still take care of essential production.

PROFIT & LOSS

Who, Me?

It was a tense moment in A.F.L. history the other day when the ballots were counted in a National Labor Relations Board election at the Conroy-Prugh Glass Co., in Pittsburgh, Pa. The A.F.L. had two members serving as observers at the polls that day. The election results showed: C.I.O.—55 votes; No Union—1 vote; A.F.L.—1 vote.

Bubbles

One of the many products which are going to run short soon because of the defense program is the bubble bath. It seems that the chemical that makes the bubbles is pretty essential for cleaning airplane fabrics, so bubble-bath soakers are going to have to find something else to do with their time for the duration.

The first real indication that the bubble bath was doomed came several weeks ago at the Annual Cosmeticians Show held at the Benjamin Franklin Hotel in Philadelphia. One of the hotel's cigarette girls was induced to participate in a kind of funeral service for the bubble bath then, to make it crystal-clear to patriotic bubble-bathers that they were going to have to give up all the bubbles they could spare to the aviation industry (below).

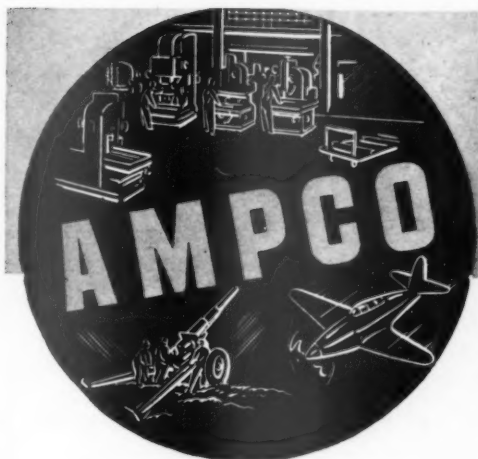
The bubble bath hasn't been a cosmetic product for very long. Originally,



it was just a material called Orvus ("a member of the hymolal salts group") put out by Procter & Gamble for big laundries to use in washing blankets. Then the cosmetic industry picked it up, doctored it, packaged it, publicized it, and sold it to luxury-loving ladies. (The play, "The Women," in which a hussy spent a whole scene in a bubble bath, did wonders for sales.) Now that P. & G. is giving priority on the material to commercial and industrial users, though, luxury is back on the shelf.

Mash Notes—Dated

Apparently a lot of women in Two Rivers, Wis., have been getting sugary



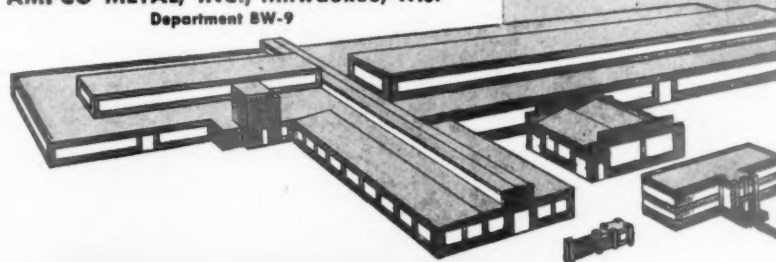
In the Tools and Weapons of Defense

Like hundreds of other plants, the Ampco foundries are all out for defense. Today 98.5% of the output is devoted to defense activities. Ampco Metal and Ampco-made bronzes are being used in aircraft, machine tools, ordnance, and other equipment where the sturdy, wear-resistant qualities of Ampco alloys are essential.

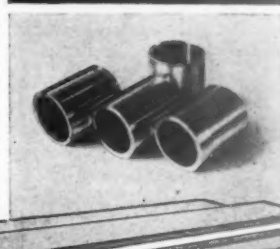
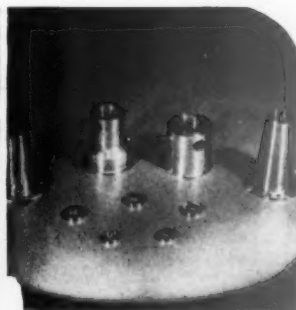
For years before the defense program was under way, Ampco was serving American industries, helping build the quality for which American products are famous. The high tensile strength, controlled harness, and resistance to wear and corrosion of Ampco-made bronzes were early recognized by designing engineers as necessary for satisfactory equipment performance.

Catalog number 22—brand new — shows why Ampco Metal is preferred by defense contractors.

AMPCO METAL, INC., Milwaukee, Wis.
Department BW-9



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letters lately from the boys in the Army. Not the pretty young girls in town, either; but the settled, happily-married matrons—and even a few grandmothers. It's easily explained though, by the fact that during the last war the Aluminum Goods Manufacturing Co. in Two Rivers made canteens for the Army—and every once in a while girls who were wrappers at the plant used to slip their names and addresses into the canteens before they sent them out—and a lot of the canteens didn't ever get used in 1917 and 1918—but they were dusted off and passed out to the new Army just a few months ago—so—

Survey

Parents' Magazine runs a regular department called Tricks for Teens. It pays a dollar for every good suggestion that comes in from its readers concerning these "fashion fads that hit high school fancies"—to which it gives the ungainly name of "fad-shions." At intervals Parents' collects its fad-shions all together and issues a booklet of them. For example:

A card in Norfolk, Va., says "those metal chains with a sink stopper at one end make dandy watch chains (without the watch of course) to wear in the pockets of your new waistcoat. When someone asks the time, the sink stopper is always good for a laugh."

A bunch of girls in Haddon Heights, N. J., dip baby teething rings and pacifiers in molasses and put them in the icebox to harden. Then they tie them on colored ribbon, wear them as necklaces to school, and suck on them when they're hungry.

In Cane Hills, Ark., and Kansas City, Mo., the boys swipe the girls' hair ribbons and wear them in their hair; while in Akron, O., the boys pin them all over their trousers—sometimes with bells on them.

Necklaces of Puffed Wheat, Kix, and other breakfast cereals are apparently old hat now, but in Fond du Lac, Wis., the current rage is raisin necklaces. In Red Lake, Mich., they're cutting wooden rulers into pieces about two inches long, drilling holes in them, and making belts, necklaces, and bracelets. In Madison, W. Va., they make necklaces of artificial finger nails (painted to match their own nails).

In Clarksburg, W. Va., the sharp numbers are wearing their wrist watches on their ankles. In St. Peter, Minn., the girls keep their socks up with men's garters. All over the map now they are wearing contrasting socks—sometimes even two different-colored socks on each leg—sometimes even different shoes on each foot—and in Akron, O., the gang likes to get together and all wear their clothes backwards.

O.K., gentlemen—grab the aspirin and analyze that market.

THE TRADING POST

Morale and Management

One reason why popular morale with respect to the defense effort is not what it might be is the pathetic lack of popular understanding as to what it means to shift an industry from peacetime to defense production. To hear some of the talk, you'd almost think we could shut down an automobile plant Friday and on Monday have it turning out tanks or machine guns.

Because of this cockeyed notion, it happens that when legislators appropriate billions of dollars and politicians babble of tens of thousands of airplanes and tanks "on order", as though they already were in the air or in the field, the people are prone to expect too much too soon. Then as delivery falls short of expectation, they become restive and critical. And too often their target is the business man, who is trying to perform the impossible, rather than the politician who has promised the impossible. Such disillusionment, coupled with its tendency to blame others, never does make for high morale.

All this and a lot more recurred to me as I looked over some of the defense work under way in and around Detroit.

Probably it is not difficult to convince most people that it takes time to build new factories, such as the Chrysler tank plant and the naval ordnance plant, where the Hudson Motor Car people have turned the equivalent of 36 square city blocks into 14 vast buildings with more than 1,000,000 square feet of floor space. But it's not so easy to convince them that getting those buildings up is not the toughest part of the job.

When they are ready, they must be equipped with machines, tools, and fixtures in endless array. Then Hudson must recruit an army of 7,000 workers to operate them, of whom 4,000 must be highly skilled mechanics. To assemble that equipment and those men, and to get them producing smoothly and consistently is the big job, although it probably is the least understood of all.

One reason for this is the strangeness of the work to be done. There's more difference than most people think between making an automobile and making an airplane, for example.

As Business Week pointed out (BW—Sep. 20 '41, p. 18), in a typical, 4-door sedan body such as Briggs Mfg. Co. normally builds, there are about 1,500 parts. And that includes nuts, bolts, screws, and other fastenings. But in a pair of Sikorsky wing sections alone, which they now are making, there are more than 3,600 separate parts in addition to some 22,000 rivets, nuts,

bolts and screws. In a pair of Douglas wings, soon to come off the Briggs line in volume, there will be more than 4,500 parts and 28,000 rivets and other fastenings. An automobile door requires about two hours of labor, as compared with 75 hours on the smallest airplane door Briggs is making. Tolerances, too, are another matter. Where $\frac{1}{32}$ -in. or $\frac{1}{64}$ -in. is amply close in auto bodies, airplane specifications think nothing of requiring $\frac{1}{1000}$ -in.

All this lays new emphasis on especially-skilled labor. And that calls for extensive training in the new skills. Briggs alone already has a school destined to keep 900 men constantly in training for 60-day periods.

But even with the new plants built and equipped and the operating staffs trained to run them, there remains the most exacting job of all. That is the managerial task of planning, initiating, and carrying through the prodigious program on which we have embarked.

It is illustrated vividly by the job that confronted General Motors as it tackled the \$1,200,000,000 worth of defense contracts now entrusted to its several divisions. No one who has not handled such a job can appreciate the infinite detail that must be mastered, the expert knowledge of men, materials, and machines that must be tapped, the specialized skill in coordination that is needed to organize, engineer, buy, control, and get into mass production the highly-developed machinery of modern war. And on top of all this is piled the exacting requirement of finer standards of workmanship plus greater urgency than have ever been required of men, machines, materials, or management.

If this job is to be well done, we have first to make full use of the executives, engineers, and mechanics who already have experience in work that resembles as closely as possible the armament job. Then we must provide for the consistent training of men to fill the managerial positions as well as those to man the machines. We are fortunate to have at the outset trained industrial organizations such as those of motor manufacturing companies. They probably are the most experienced of all organizations in subcontracting and otherwise fanning out industrial production amongst an army of small manufacturers.

But sooner or later we shall have to strengthen our managerial staffs all down the line. And unless we get busy right now, we shall have it brought home to us in mighty unpleasant fashion that the master bottleneck of defense is managerial capacity. For sound management will foster high morale. W.C.

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THE TREND

A NEW INVENTORY PROBLEM

The United States has an inventory problem. But it's not the type of inventory problem we customarily worry about in this country. Unlike 1937, stocks on hand are not too big; they're too small. And yet, the Department of Commerce's estimate of manufacturers' inventories is the highest on record!

However, mere size is not everything. Inventories must be related to shipments. And shipments of American manufacturers, month after month, have been rising to unexampled heights. The net result is that the ratio of inventories on hand to shipments of goods has been progressively declining since the war started; in short, manufacturers have been increasing sales of finished goods faster than their replacements of raw materials. Thus, even though dollar inventories are up, the number of days' supply of physical stocks on hand is down.

• **Some companies have escaped;** for the inventory problem splits into two parts: non-defense and defense industries. Non-defense companies have had a hard time getting sufficient stocks to keep their plants operating at recent capacities. But manufacturers of armaments, with priority ratings to give them a call on critical supplies, have been able to maintain or even to increase their inventories relative to shipments. On this point, the National Association of Purchasing Agents, in its current monthly bulletin, says: "Undoubtedly there are hoarded supplies on hand in many places and attempts will be made to smoke them out." And the Supply Priorities and Allocations Board is already reported making a study of excess inventories, built up by too liberal use of priorities.

That, however, is only one phase of the problem. In a war economy, the inevitable tendency is for all companies to prefer to do business with the armament maker, who can attach a priority slip to his order. If a company sells copper wire to a defense manufacturer and gets a priority order then he can turn around and replace the raw copper in the open market. His physical inventory remains unchanged. But if a company sells to a non-priority-rated manufacturer, it cannot be sure it will be able to replenish its raw-copper supply in the current tight market.

• **Thus, self-preservation** sets up a decided priority-preference among business men, themselves. Some companies go so far as to refuse to sell articles containing critical materials without a priority order. And this can be carried to extremes. In its "Guidebook to Priorities," Business Week called attention to the over-caution of a hardware dealer who demanded a priority slip from a customer on a simple tool (BW—Sep. 20 '41, p. 46). As the National Association of Purchasing Agents observes, business men everywhere are becoming "priority-minded to the point of insanity." They neither want to buy nor sell goods without priorities.

Automatically, this priority-mindedness puts the non-

defense company at a decided disadvantage in trying to build up his inventories in competition with the arms manufacturer—even on goods which contain only small quantities of critical materials. And unless something is done about it, the tendency will get worse instead of better.

• **Up until recently,** business men, in general, had been able to increase their inventories (though not as fast as shipments). This was possible because the nation's industrial machine had excess capacity over and above immediate needs; it could produce goods for inventory as well as for current consumption. But now production of such basic raw materials as steel, copper, aluminum, and even certain types of textiles, is for up-to-the-minute use. Steel goes direct from the rolling mill into a tank or shell; it doesn't go to a warehouseman or an auto-parts manufacturer for stock. Thus, inventory-accumulation is largely a thing of the past.

Nor is that all. Arms production is rising month by month at an accelerating speed. That means that airplane, shipyard, tank, and other defense companies will require an increasing volume of inventories merely to keep their production lines moving on OPM schedules. Thus, not only will arms industries require a major part of the output of new raw-materials plants (steel, aluminum, magnesium, etc.) now being built, but also they will eat into supplies of civilian producers—the passenger-car companies, for instance. And so, inevitably, under the pressure of unreplenished inventories, non-defense companies will be forced to curtail, or shut up shop altogether.

• **Such a development,** if not planned, is obviously both unwise and uneconomic. A certain volume of consumer-goods production is essential to the country's general welfare as well as to the armament effort. But the danger is that business men, because of their understandable preference for priorities, will unwittingly squeeze non-defense companies (especially smaller ones) out of business. That is where SPAB can do a really constructive job—by surveying the country's total stocks of critical supplies, carefully allocating them between defense and non-defense production, and then following up its allocations by seeing that non-defense companies get their allotted share.

After all, it is one thing deliberately to decide to curtail automobile output in the interest of national defense. It is another and an entirely reprehensible matter to permit companies to shut down—casually—just because supplies available to their industry have been gobbled up by companies with priority ratings. Perhaps some non-defense priority rating plan can be set up to save the situation. But one thing is certain: If ever there was a time for wise economic planning, this is it. SPAB has a big job to do.

The Editors of Business Week

Business Week • September 27, 1941

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